

UNIVERSITY OF CALIFORNIA
RIVERSIDE

An Archaeological and Historical Perspective on the Peña Adobe
and Rancho Los Putos, Solano County, California

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of the requirements for the degree of

Masters of Science

in

Anthropology

by

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December, 1984

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December, 1984

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PREFACE

All measurements are in metric units except for distance, acreage, and four architectural drawings (Figs. 11-14) financed in 1962 by the National Park Service as part of the Historic American Buildings Survey, which are in English units. Also, I excavated two 5 by 5-ft (1.5 by 1.5-m) units in September and October of 1982. The metric system was not used in my fieldwork in order to keep dimensions of archaeological units consistent with those from previous excavations.

CHRONOLOGY

- before 1841 Prehistoric Period. Area Occupied by the Southern Patwin.
- 1841 The Vacas' and Peñas' Arrive in Vaca and Lagoon Valleys.
- 1842-1846 Vaca and Peña Adobes Constructed.
- 1842-1849 Hides and Tallow Industry
- 1843 Title to Rancho Confirmed January 27, 1843, by Governor Micheltorena
- 1845 Grant to Rancho Los Putos Made by Governor Pío Pico on August 30, 1845
- 1849 Gold Rush
- 1849 Cattle Ranching for Beef Begins
- 1849 First Recorded Sale of Land From Rancho Los Putos Made April 7, 1849
- 1850 Manuel Vaca Deeds 9 Square Miles to William McDaniel on August 21, 1850
- 1850 California Becomes a State on September 9, 1850
- 1851 Plat of Vacaville Filed December 13, 1851
- 1853 Land Commission rejects on November 15, 1853, Vaca's and Pena's Title to Rancho Los Putos
- 1858 U.S. Patent to Rancho Los Putos Awarded June 4, 1858
- 1860s-1870s Wheat Growing
- 1863 Juan Felipe Peña Dies March 15, 1863 at 73 Years of Age
- circa 1880 Peña Adobe Modernized by Adding Frame Additions and Wood Sheathing to Original Structure
- 1880s-1900s Fruit Growing
- 1885 Isabella Peña (Wife of Juan Felipe Peña) Dies

- 1892 Vaca Adobe Destroyed in Earthquake
- 1918 Nestora Peña Rivera Deeds the Peña Adobe and Surrounding Land to her Niece Maria Dolores Peña Lyon
- 1922 Nestora Peña Rivera Dies
- 1958 Descendants of the Peña Family Sale the Adobe to Delbert A. Mowers and William F. Goheen.
- 1962-1965 Peña Adobe is Restored to its Original 1840s Appearance
- 1965- Pena Adobe Park Operated by the Parks and Recreation Department of the City of Vacaville

Chapter 1

INTRODUCTION

Many stories (Garrison 1935; Bauer 1953) have romanticized the California rancho days, focusing on certain prosperous Californios. Cleland (1959:71) stated that the "picture of California life during the so-called Golden age, long ago created by romantic writers and deeply embedded in popular tradition, will probably never be greatly changed by historians of a more realistic school." Likewise, Bean (1973:72) believed that "perhaps no period of history has ever been more extremely romanticized than have 'the halcyon days of the dons' in California." Most accounts emphasize special occasions such as festivities centering around marriage, or baptism, or major political events, such as land litigation conflicts from the Anglo-contact period. It is the everyday rancho life of common folk that is seldom recorded in the literature. To present this latter perspective, artifact assemblages, architecture, and historical accounts of the Peña Adobe, a California rancho home (Fig. 1), have been analyzed. The Peña Adobe is situated two miles southwest of Vacaville, (Solano County) California, on Peña Adobe Road (Fig. 2). It is registered as California State Historical Landmark No. 534, and it was nominated to the National Register of Historic Places in 1970.



Fig. 1. Peña Adobe home before restoration work in 1962. View from the east.

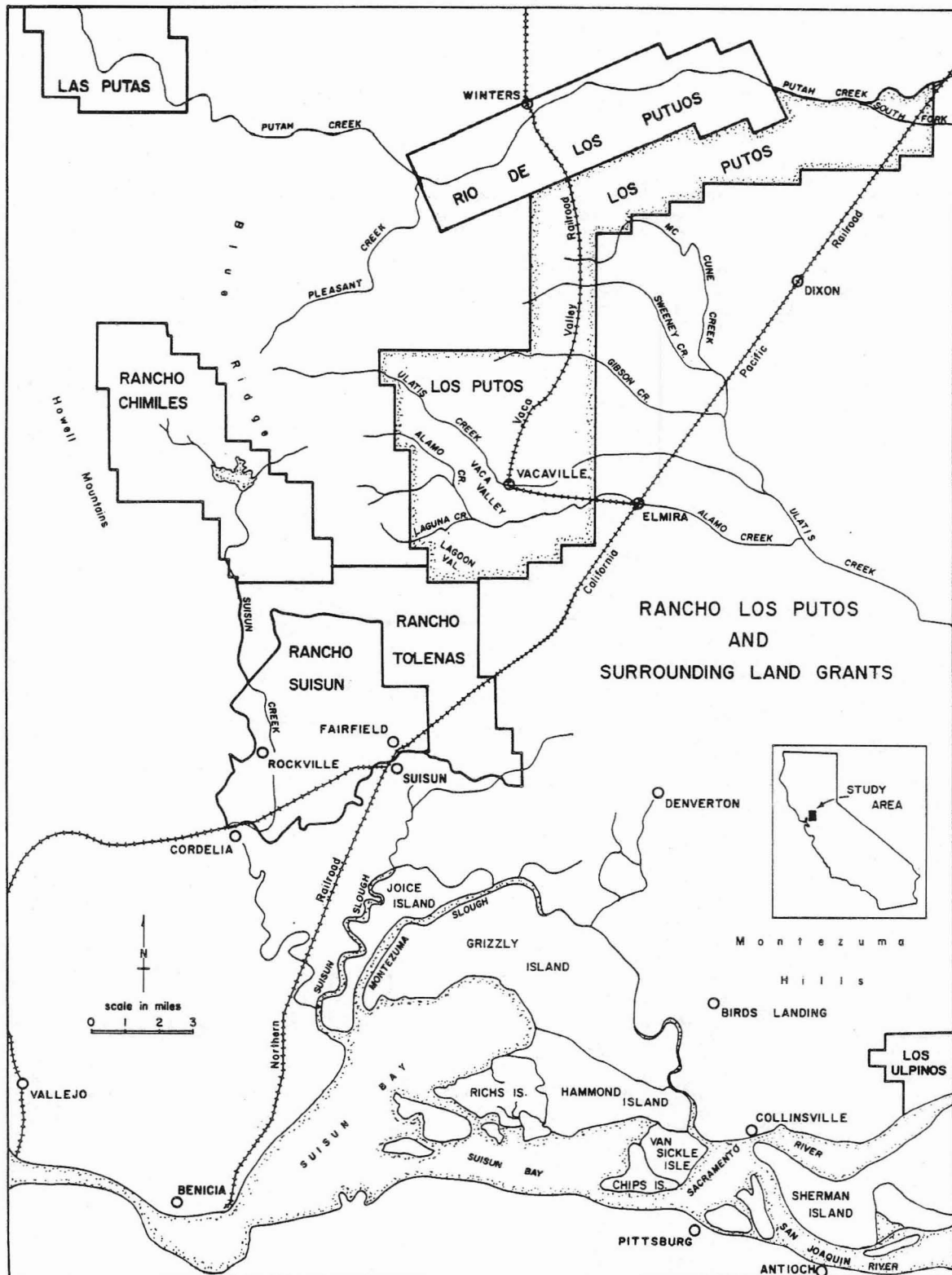


Fig. 2. Location and Extent of Rancho Los Putos.

The Peña Adobe was the home of Juan Felipe Peña and family, who jointly owned the ten-league (about 44,386 acres), Rancho Los Putos (Fig. 3), with the Juan Manuel Vaca (Baca) family. The rancho was located in the northwest and the north central portion of Solano County (Hendry and Bowman 1940:424i). The Peña and Vaca families emigrated from near Abiquiú, New Mexico, to California on the Old Spanish Trail, in early September of 1841 as members of the Workman-Rowland party. Their group reached Los Angeles in early November (Hafen and Hafen 1954: 206-208; 210-211). From Mission San Gabriel, they followed El Camino Real through Santa Barbara to Monterey, to Sonoma, and thence to Lagoon Valley (located two miles southwest of Vacaville) (Young 1971:3). Juan Felipe Peña and his wife, Isabella (Fig. 4), arrived in Lagoon Valley with their six children: José Demetrio, Francisco, Jesus, Juan Antonio, Gavino, and Nestora (Fig. 5) (Young 1971:3, Appendix N). Juan Manuel Vaca (Fig. 6), a widower, arrived with eight children: Magdalena, Marcos, Juan Nepomuceno, Teofilo, Maria de Jesus, Maria Anastasia, Jesus Maria, and Maria Appolonia (Young 1971:13; Solano County Records Book E Deeds:149). Vaca married Estefano Martinez in 1845. They had one child, Francisco Miguel, and separated in 1852 (Young 1971:24).

Vaca and Peña are said to have built a temporary shelter on a hill (in Vacaville) east of Ulatis Creek

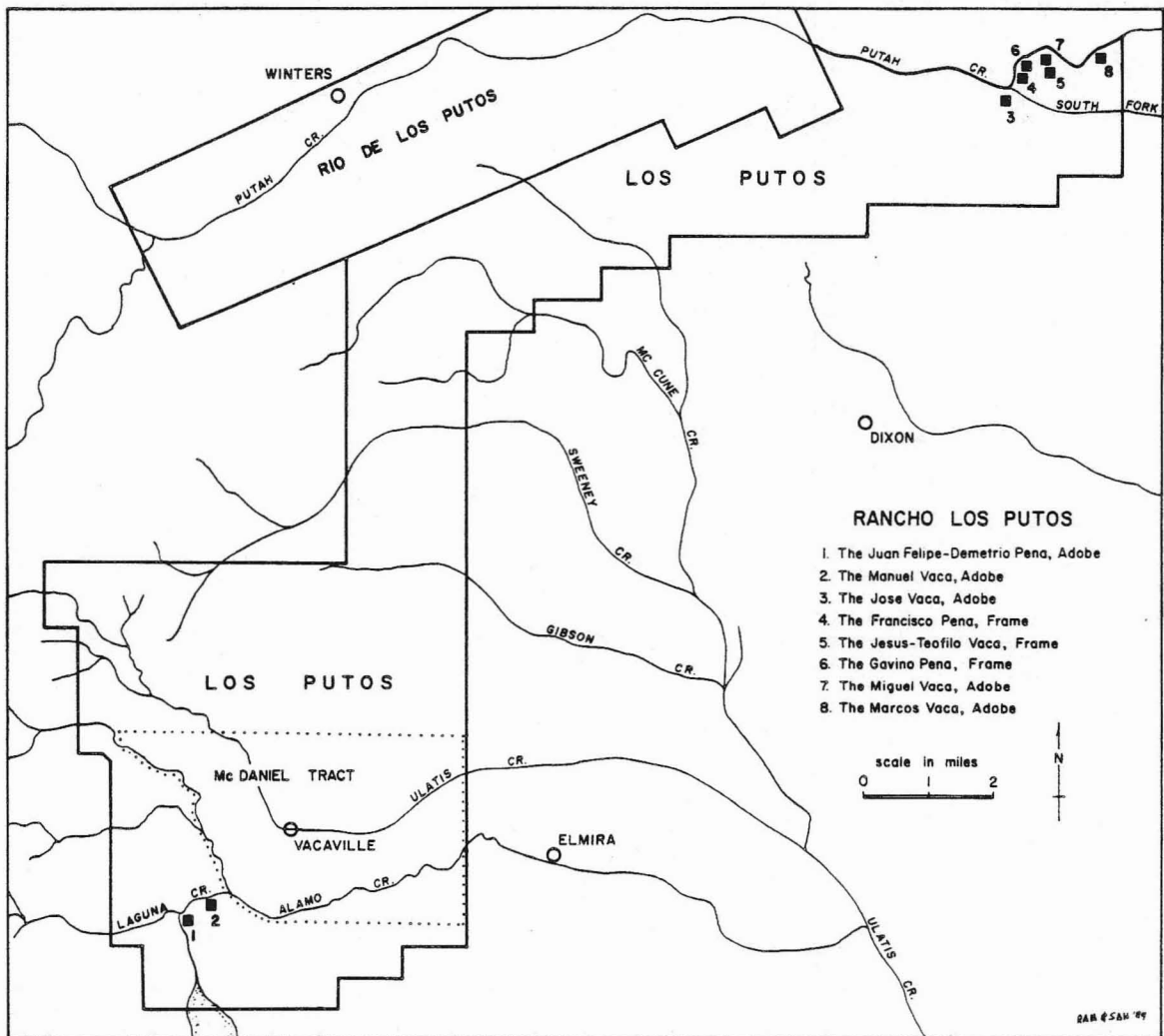


Fig. 3. Rancho Los Putos.



Fig. 4. Juan Felipe Peña (1790?-1863) circa 1860.
Isabella Gonsalves Peña (?-1885) circa 1863.
Wife of Juan Felipe Peña.



Fig. 5. Left: Nestora Peña Rivera circa 1900. Daughter of Juan Felipe and Isabella Peña. Right: Maria Dolores Peña Lyon circa 1915. Granddaughter of Juan Felipe Peña and Juan Manuel Vaca.



Fig. 6. Juan Manuel Vaca (1781?-1858?).

(Crystal 1933:65). Maria Dolores Peña Lyon, granddaughter of Vaca and Peña, told Crystal (1933:41) that twenty-five Santa Barbara mission-trained Native Americans sun-baked the adobe bricks and built the Vaca and Peña Adobes. The construction of the Peña Adobe was completed sometime between 1842 and 1846 (Young 1971:21; Crystal 1933:146). The Vaca Adobe was located one-third mile north of the Peña Adobe in Vaca Valley. It was destroyed by the earthquake of 1892 (Young 1971:11).

The Vaca-Peña rancho was a grant from the Mexican Government. The requirements of the government to obtain a grant of land were building a house, occupying the area, marking boundaries and stocking the grant with cattle (Young 1971:11). On June 6, 1842, Juan Manuel Vaca petitioned General M. G. Vallejo for the place of Lihuaytos.¹ On the same day, Vallejo gave written permission to "Manuel Baca and the families which he brings" to occupy the ten leagues. Rancho Lihuaytos was confirmed on January 27, 1843, by an official grant from Governor Micheltorena. The boundaries of the Lihuaytos rancho overlapped the prior William Wolfskill Rio de los Putos grant. The dispute was settled in Wolfskill's favor, and the new Vaca-Peña rancho was named Los Putos.² The grant for Los Putos was made by Governor Pío Pico on August 30, 1845, and confirmed by the Departmental Assembly on October 1, 1845 (Crystal 1933:72-73, 78-80, 270; U.S.

District Court Records No. 74 ND:5-6, 9, 24-29, 59; Young 1971:12, Appendixes A, B, C). An official survey of the Rancho was made by Dewitt C. Cage of the Surveyor General's Office in May of 1857, encompassing 44,383.78 acres. On June 4, 1858, the Vacas and Peñas obtained their final Patent to Los Putos from the United States Government, after legal battles with the State Land Commission, in the District Court, and finally in the United States Supreme Court (Young 1971:17, 19-20; Solano County Records, Book 1 Patents:37; Hoover, Rensch and Rensch 1966:512; U.S. District Court Records No. 74 ND:126-128).

The Peña Adobe is one of the oldest residences still standing in Northern California. The Peñas and Vacas were probably the earliest persons of European ancestry to settle in what is now Solano County (Vallejo Times Herald 1962b:17). Although the history of these families has been nicely written by Young (1971), an archaeological analysis of the site was never done. Young researched in depth land transactions, marriages, deaths, and other major events. I therefore undertook an archaeological analysis, as the only way to reveal aspects of the routine, or "everyday life," of these pioneers. Particular attention is given in the following pages to the function of artifacts. I was interested in knowing if a modest early Hispanic family was able to afford such luxury items as imported dinnerware and non-

essential foods, or if they had mainly utilitarian earthenware and a basic subsistence economy.

This research also provided an opportunity to study the effects of land litigation on a rancho owner. Eight years passed after California became a state before the Vacas and Peñas obtained their final patent to Rancho Los Putos, their case going to the United States Supreme Court (Young 1971:20). With a confirmed patent, portions of the rancho were rapidly sold. Historical documents reveal some of the reasons why the land was sold. Although the Vacas and Peñas in 1846 owned 2000 cattle and 200 to 300 horses, wheat and early fruit production by Anglos soon replaced the grazing herds. This economic change is documented in the archaeological record. One would expect to find fewer tools used for ranching after the 1860s, and more tools designed to harvest fruit, and this is the case. I have also looked for empirical evidence concerning how the Peña family was affected by the transition from ranching, essentially an exchange economy based on the trade of hides and tallow, to grain farming and then to fruit production, presumably cash economies. These transitions enabled, and required the Peña family to become more diversified in their purchases. I hope that the artifact assemblage analysis has stated something about the economic status of this family, as well as the extent of its contacts with trade networks. In sum,

this research offered an opportunity to study the social, economic, and cultural development of a central California pioneer family.

RESTORATION

The Peña Adobe was purchased November 8, 1957, by County Supervisors Delbert A. Mowers and William F. Goheen (Solano County Records, Book 905 Official Records:120-122). Mowers and Goheen deeded the adobe and 1-1/2 acres to the Solano County Historical Society, which transferred title to the City of Vacaville on November 10, 1961 (Solano County Records, Book 1108 Official Records:18). Revitalization of the Peña Adobe began January 2, 1962, under the supervision of restoration specialist, Merle G. Curtice. About seventy men from the California Medical Facility took part in this project. The inmates worked in shifts of ten men each, five days a week (Superior California News 1962:C1). Financial support for the \$30,000 restoration, completed in 1965, came from the Solano County Historical Society, the City of Vacaville, the County of Solano, and donations. The Native Daughters of the Golden West, Vacaville Parlor No. 293, were also instrumental in supporting the restoration of the adobe. Today, the adobe is surrounded by about 30 acres designated, "Peña Adobe Park" which is under the administration of the Parks and Recreation Department of the City of

Vacaville. It is open to the public Wednesday through Sunday with a curator on duty.

The Peña Adobe has been restored to its original 1840s appearance with the exception of having hand-rived shakes rather than the tule-thatch roof which it had in 1842 (Young 1971:32). It is the oldest intact adobe in Solano County. It is furnished with articles that date from the Peña period, but many of them are not from the Peña family (Vallejo Times Herald 1962a:7). About 1880 the house was enlarged and "modernized" by adding frame extensions which encased the entire building in wood sheathing. During the 1962 restoration, this siding was removed and a frame annex (7.3 by 5.5 m) attached to the north end of the adobe was relocated a few yards north (Merle Curtice, personal communication 1983). Today, this building is the Mowers-Goheen Museum which exhibits prehistoric and historic artifacts, maps, and pictures from the local area.

During restoration, great care was taken in duplicating the original 1840s construction as nearly as possible. Because the adobe had been modified several times throughout its history, Merle Curtice paid particular attention to structural details. Modern methods of construction were avoided in the restoration project (The Vacaville Reporter 1963a:15). Redwood logs from Camp Grant, Humboldt County,

were brought to Vacaville by rail where they were split into workable pieces. The redwood was used to restore window bucks, door frames, rafters, doors, roof sheathing, shakes, saddle boards, posts, sills, collar ties and flooring in the attic, etc. All of the redwood used in the restoration work was split and hewn by hand.

Although the adobe had not been regularly occupied since the 1920s, only the south wall had collapsed, in the summer of 1958 due to rodent disturbance of the foundation, and weathering (The Sacramento Bee 1959:C4). Adobe bricks were made on the site from soil obtained near the creek (immediately east of the building) to rebuild this wall (Merle Curtice, personal communication 1983).

EXCAVATION WORK

Several excavations have been made in the vicinity of the Peña Adobe.

NEWHALL

In 1958, an excavation was begun within 15.24 m of the building by Helen Newhall and Fred Jones. While excavating an Indian house floor, Newhall encountered "Spanish American" materials at a depth of 0 to 30.5 cm from the surface (the house floor occurred at 30.5 to 61 cm below the

surface). Unfortunately, only field notes seem to have been kept of this work and the artifacts were not catalogued. Some of these artifacts are on display at the Peña Adobe museum and others are in storage in the adobe attic. I have catalogued the artifacts, and those which relate to the Peña period were analyzed.

PALUMBO, SITE 4-Sol-30

With expansion of California State Highway 40 (now Interstate Highway 80), archaeological investigation of 4-Sol-30 continued from December 23, 1963, until January 4, 1964. The project, directed by Patricia Palumbo, was in compliance with the terms of a contract enacted between the Central California Archaeological Foundation and the California Division of Beaches and Parks. Sol-30 is an open aboriginal occupation site located on the south side of Interstate 80, 2-1/4 miles west of Vacaville.³ Fieldwork was restricted to the highway right-of-way which lies approximately 15.2 m from the Peña Adobe. Altogether, thirty 1.5 by 1.5-m (5 by 5-ft) units were excavated, the material being passed through 0.63-cm (1/4th-in.) mesh screens. Although the majority of artifacts recovered in 15.2-cm (6-in.) levels from Sol-30 date from the prehistoric period, mention is made of "artifacts of European manufacture such as nails (square and round), metal fragments, pottery and

glass fragments" being found in quantity at all levels (Palumbo 1964).

RESTORATION

During restoration of the Peña Adobe, artifacts were recovered from the excavation of a privy (27N 12E, 28N 12E), and trenches dug (50.8 cm deep) for water pipes and electricity lines (Clifford Curtice 1962b; Merle Curtice, personal communication 1984; The Vacaville Reporter 1964:1). Some areas inside, and outside, the adobe home were also excavated. At least two 1.5 by 1.5-m (5 by 5-ft) units were dug in the south room of the adobe (Clifford Curtice 1962a:1), and the soil was screened from under the floor of the central room (Merle Curtice 1962:16). All soil removed during the restoration process was carefully screened through 0.63-cm (1/4th-in.) mesh (Superior California News 1962:C1). Many small but significant artifacts were recovered. In the attic of the adobe were several boxes of ceramic sherds, bottle fragments and other cultural materials which date from the 1850s to the 1930s. These artifacts, recovered during the restoration period, make up the bulk of the analyzed material culture.

CURTICE

Permission from the curators of the Peña Adobe, Stern M. Paulson and Cliff Bisbee, and from the director of the Vacaville Recreation Department, Ron Mikalis, was granted for me to excavate on the Peña grounds to ascertain if the above artifact collections are representative of the Peña occupation period. I established a north-south work line (based on true north) and an east-west line which corresponds to the datum point established in previous excavations, and which is the southwest outside corner of the Peña Adobe. I excavated two 1.5 by 1.5-m (5 by 5-ft) units (1N 11E, and 2S 10E), in September and October of 1982.⁴ Although the Peña Adobe is situated on a prehistoric Indian occupation and burial site, only artifacts from the historic period were analyzed.⁵ The two archaeological units were dug in 15.2-cm (6-in.) increments to depths of 30.5 cm and 45.7 cm (1 and 1-1/2 ft). All soil removed from these units was screened through a 0.63-cm (1/4th-in.) galvanized mesh.

ANALYSES

Artifact analyses focused on the functional and chronological aspects of the artifact assemblages. Chronology is important at this site because it was occupied by the Peña family from 1841 to 1918, and later by unrelated persons.

Juan Felipe Peña's only daughter, Nestora, inherited the adobe, which she occupied with her husband, Juan Tapia Rivera. In 1918 Nestora Rivera left the adobe to live out the remainder of her life in Vacaville (Young 1971:3, 11, 27-28). Since this research is concerned solely with the Peña family, artifacts dating only from their time period (1842-1918) were analyzed, but all artifacts were catalogued.⁶ Prehistoric material from the site is on display in the Mowers-Goheen Museum.

NOTES

1. John Wolfskill testified before the U.S. Land Commission in 1854 that Lihuaytos was the name of an Indian village on the south side of Los Putos (Putah) Creek (Crystal 1933:31, 125).

2. The word Putah and Putos are believed to have been derived from the Patwin Indian Village, Puta-to (pu being the Patwin root for east). These people lived on the banks of Putah Creek (Gudde 1969:259). According to William Wolfskill Los Putos was the name of a Native American group living near Putah Creek (Crystal 1933:60).

3. Sol-30 is located in the center of section 30 (projected) T.6N, R.1W, MDM, (UTM: Zone 10, 586150 mE 4243490 mN).

4. The metric system was not used in my fieldwork in order to keep dimensions of archaeological units consistent with those from previous excavations.

5. The prehistoric artifacts recovered during my fieldwork were catalogued, and are stored in the attic of the Peña Adobe.

6. The artifact catalogue is on file in the Mowers-Goheen Museum, and the artifacts are stored in the attic of the Peña Adobe.

Chapter 2

ARCHITECTURE OF THE PEÑA ADOBE

PEÑA ADOBE

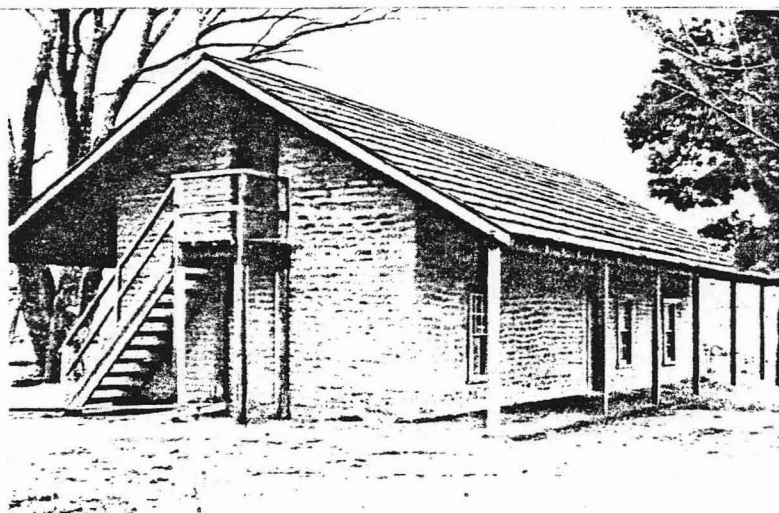
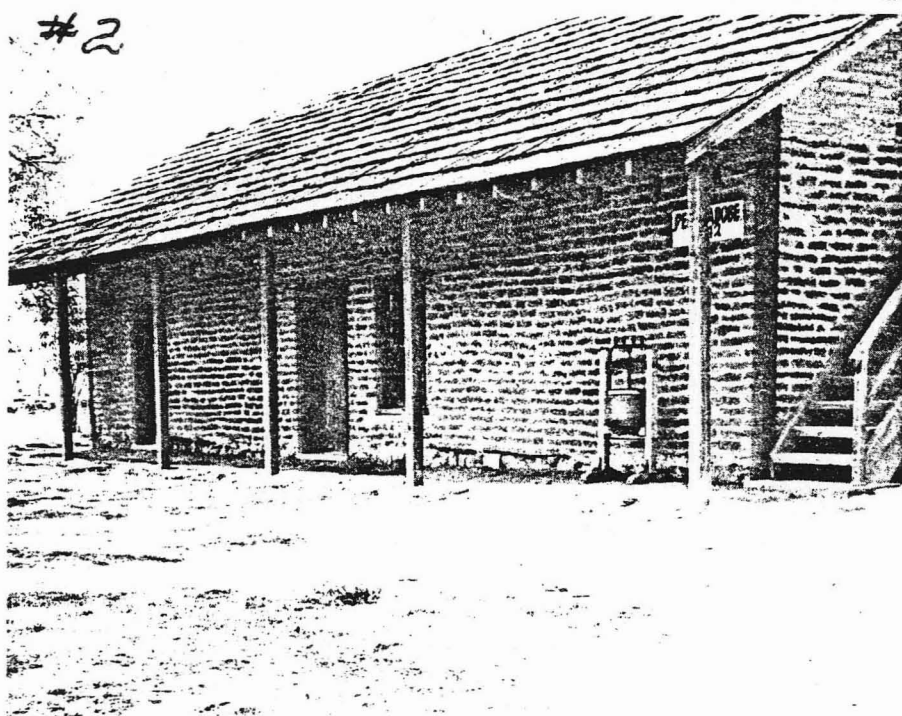
The original Peña Adobe home (Fig. 7) was remodeled at least three times by the Peña family and their descendants.

ORIGINAL 1840'S PEÑA ADOBE STRUCTURE

The adobe building is approximately 15.16 by 5.38 m (outside measurement) with three rooms of varying interior dimensions (Fig. 8). The central room (5.94 by 4.29 m) probably was the living and dining area; the flanking north room (3.45 by 4.29 m) and south room (3.43 by 4.29 m) were bedrooms (inside measurements). Height of the house is 1-1/2 stories (3.5 m to eaves); the attic was used for storage.

Roof

The original roof was thatched with tules probably obtained from the near-by lagoon. According to Peña family tradition it was replaced in the late 1840s or early 1850s with a hand-split shake roof (Hoover, Rensch, and Rensch 1966:512; Young 1971:32).



MAR 1965

Fig. 7. Peña Adobe restored in 1965 to its original 1840s appearance, except for having a shake roof instead of tule thatch. Upper: view of east wall. Lower: view of north and west walls.

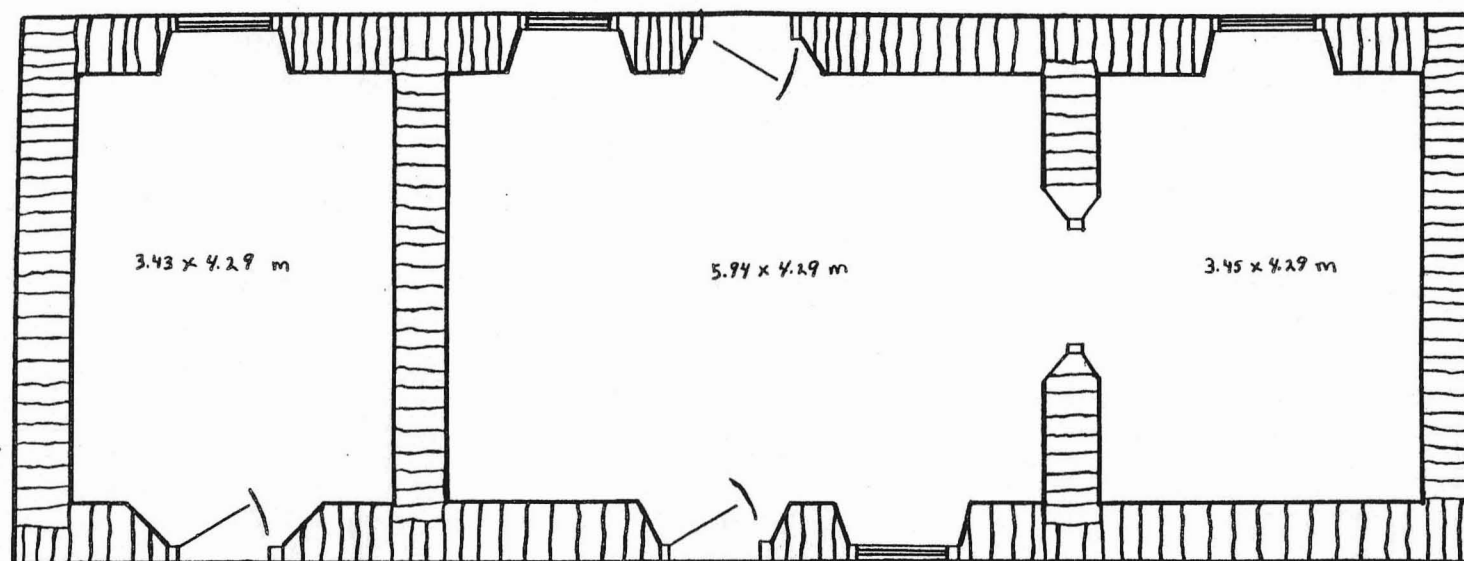


Fig. 8. Floor plan of the original circa 1842 Peña Adobe. North end of the adobe is to the right. Outside dimensions are: 15.16 by 5.38 m.

Merle Curtice was able to determine the pitch and span of the original shake roof from several structural details. Drip lines (archaeologically discovered)¹ on the west and east sides of the adobe showed where the roof once ended, prior to the circa-1880 modification. Postholes provided locations for the original overhang supports (Clifford Curtice 1963b; The Vacaville Reporter 1963a:15). The overhang of the roof on both east and west sides of the adobe extended 1.98 m from the base of the building (Young 1971:32). Fortunately, the original adobe wall was still intact on the eastern half of the north-facing wall. From these adobe blocks Merle Curtice (personal communication 1983) was able to determine that the original gabled roof was approximately one-quarter pitch.

Attic

The entrance to the attic was through a door centrally placed under the north roof overhang. Although no physical evidence for an outside stairway was discovered, the door position indicates that only an external stairway could lead to the attic. The south wall of the garret had a window. The first attic floor was secured with wrought iron square-cut nails. No remnants, except the square nails, remained of this floor in 1962, when restoration commenced (Merle Curtice, personal communication 1984).

Foundation

Exterior walls are 57.15 cm thick (double block width) being laid on a trenched fieldstone foundation (Fig. 9) typical of the Hispanic-era. Large and small fieldstones (of local sandstone) were laid in trenches that had a depth of 15.2 to 30.5 cm. The stones were 7.6 to 10.2 cm above the original land surface (Clifford Curtice 1962c; Merle Curtice, personal communication 1983). Mixed adobe mud was used to fill the voids around the stones to "cement" them together. This stone foundation was 76 to 89 cm wide. The trench was topped with a layer of adobe to level the foundation, and adobe bricks were then laid on this foundation.

Walls

Rose Peña Coombs, in conversation with Merle Curtice, recalled the source of the adobe used to manufacture the bricks. According to Mrs. Coombs, the soil was retrieved from the base of the hill, just east of the adobe home. Adobe mud was mixed with straw (wild oat straw mainly) and made into 57.2 by 28.3 by 7.6-cm bricks that were sun-dried. Adobe mortar was used to hold the adobe bricks in place. Coombs was told by her father that the adobe was built by Santa Barbara Indians.



Fig. 9. Peña Adobe. Upper: foundation for south wall of the Peña Adobe exposed during restoration work in 1962. Lower: view of south wall and west side of the restored Peña Adobe in 1965.

Floor

The original floor was of compacted adobe. It had been patched several times until a tongue-and-groove red fir floor made with 2.54 by 15.24-cm (1 by 6-in.) boards was laid on sleepers (secured with square nails), probably in the 1880s. The sleepers were imbedded into the original adobe floor, and loose earth to a depth of approximately 7.6 cm was placed between them for support (allowing about 2.5 cm of air space between the earth and flooring). The south room in the adobe had 7 5.1 by 10.2-cm (2 by 4-in.) rough floor sleepers, spaced about 61 cm apart. They were supported in low places in the earth floor with wood shims. These sleepers were not connected to the earth floor or wall with pins or nails. The sleepers landed on 5.1 by 10.2-cm (2 by 4-in.) mud sills (Clifford Curtice 1962c; Merle Curtice, personal communication 1984).

Construction Material

Coast redwood was the only timber used in the circa 1842 adobe building. Although the source for the wood was never recorded, the Sonoma redwood groves were probably the closest. Redwood was used to build the doors and the window and door frames. Present ceiling beams (10.2 by 20.3-cm on east-west axis) are the original hand-hewn redwood joists

(spaced 81.3 cm apart), as are the door and window headers buried in the adobe walls, and the plate that carried the rafters (Clifford Curtice 1962c; Merle Curtice, personal communication 1984).

ADDITION

A roof overhang was found in 1962 during restoration work. It is evidence for a small outside "addition" on the northern end of the east wall. This addition was added before the circa 1880 remodeling (Merle Curtice, personal communication 1983). Deep ash layers in the dirt floor near this annex suggest that it may have been a cooking area. Coombs stated that much of the early cooking was done outdoors (Young 1963b). Coombs (1967) was told by her family that the outside cooking area was on the east side of the adobe and consisted of a bake oven and rocks on which kettles and cooking utensils were placed. Merle Curtice (personal communication 1983) believes that the addition may have been a lean-to porch with a side wall to protect a cooking area from wind and rain. Cooking must have been done outdoors as the original adobe portion of the house did not have a fireplace or stove. Maria Dolores Peña Lyon told Crystal (1933:83) that the Peñas had an old-fashioned dutch oven in which light bread was made, and that tortillas were cooked on top of ovens like pancakes. The Vaca-Peña ovens

were "large enough to cook half a pig at a time." Food was also cooked in "large kettles hung over open fires."

REMODELED ADOBE

Sometime before 1888 the Peña home was enlarged and encased with redwood sheathing (Fig. 10). An unverified account (Young 1971:27) states that Juan Tapia Rivera, husband of Nestora Peña, only daughter of Juan Felipe Peña, was responsible for this renovation of the adobe. The Riveras were married May 11, 1881. Rose Coombs (1962), granddaughter to Juan Felipe Peña, was born in 1881 and remembered only the modernized structure. Merle Curtice (personal communication 1983) estimates that the remodeling was done circa 1870 to 1880, based on cut nails and the type of construction used. The home had definitely been remodeled by 1888, as it is pictured and described in Wickson (1888:Plate X, 73).

Dimensions and Layout

The appearance of the original adobe structure was radically changed by the circa 1880 remodeling (Figs. 11-14).² A 5.49 by 7.32-m frame structure was added to the north end of the building (Young 1971:27). This room served as a kitchen and dining area (Merle Curtice, personal communication

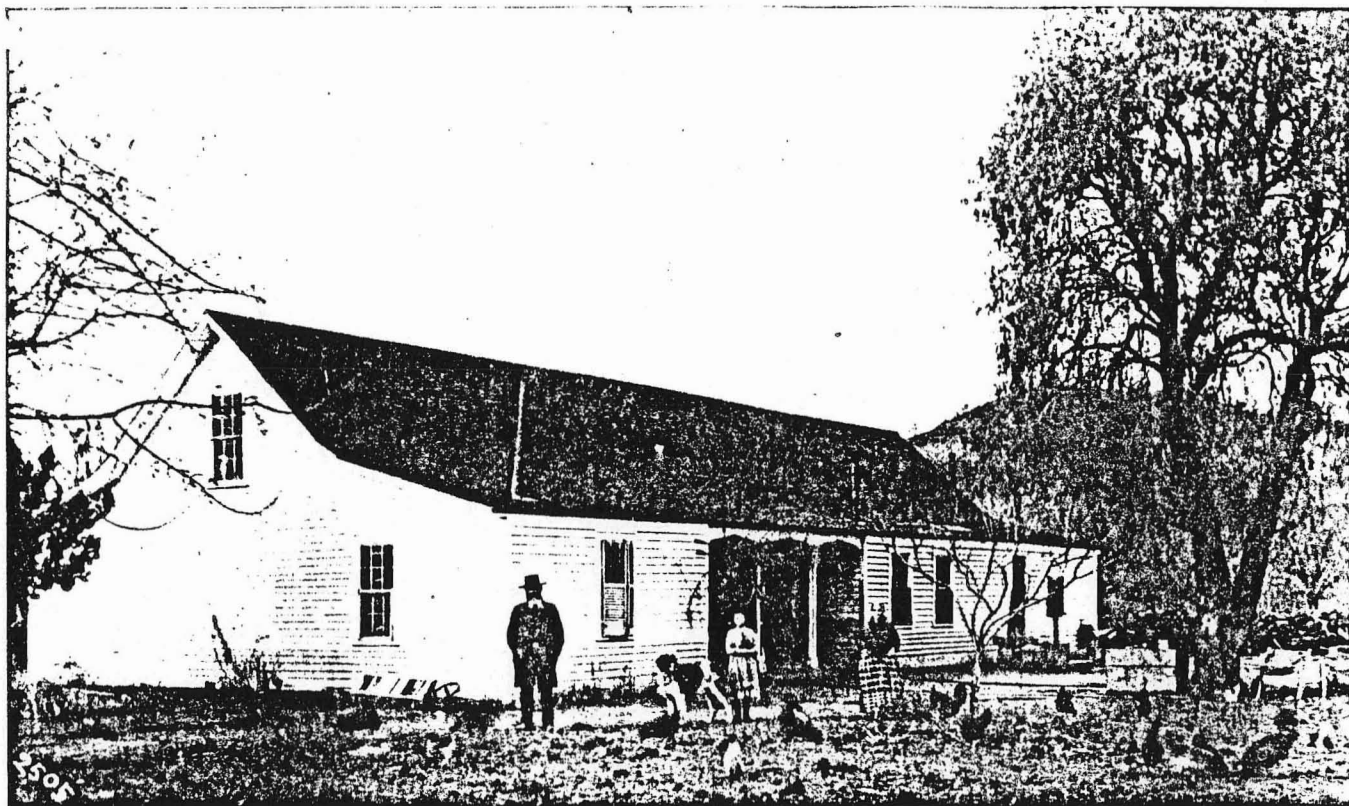


Fig. 10. Remodeled Peña Adobe sheathed in redwood siding as viewed from the east. Shown in the photo are: Jesus Tapia Rivera, Grace Diaz, Nestora Peña Rivera. Circa 1886.

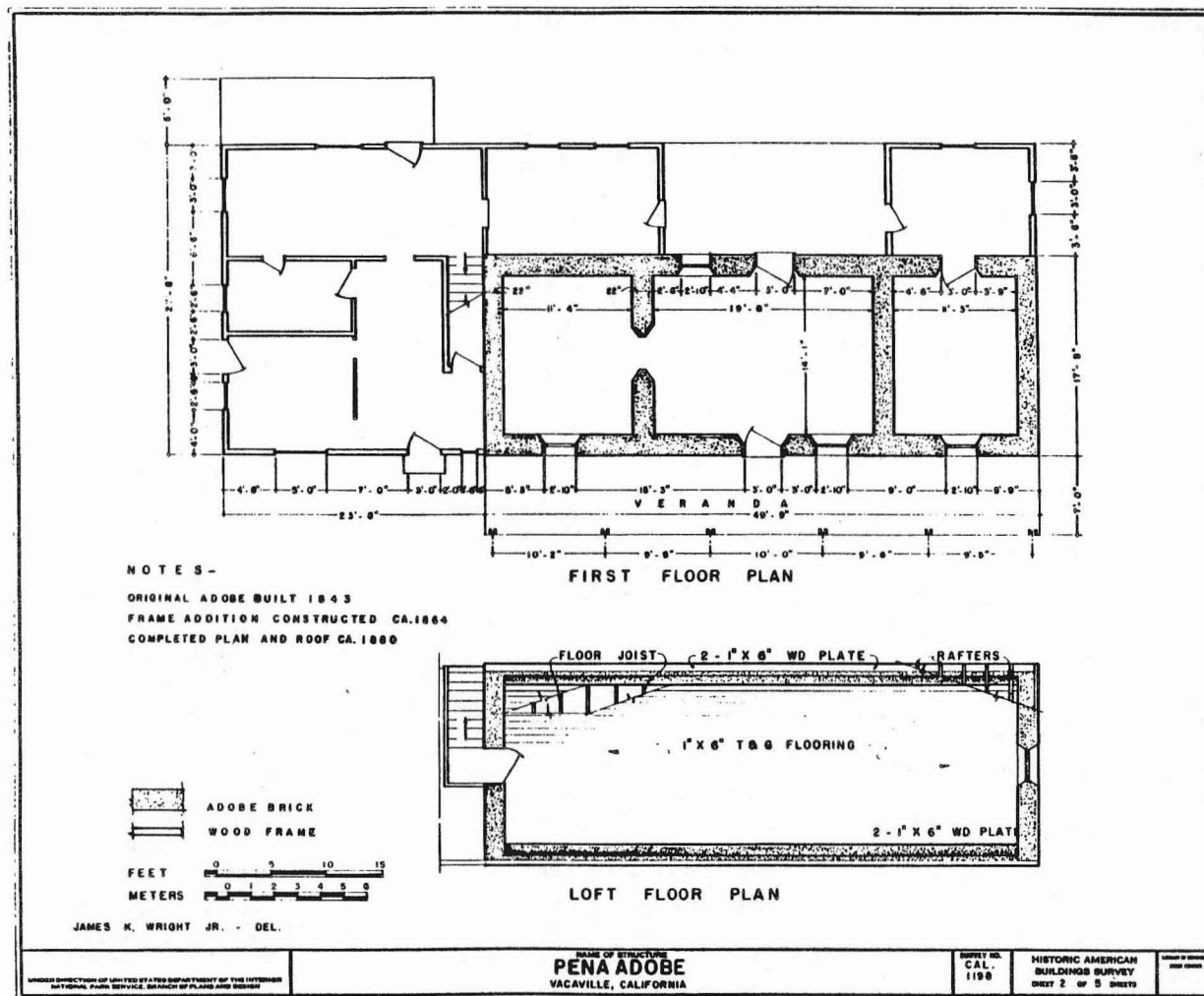


Fig. 11. Architectural drawing of the Peña Adobe home as it appeared in the 1880s.⁴

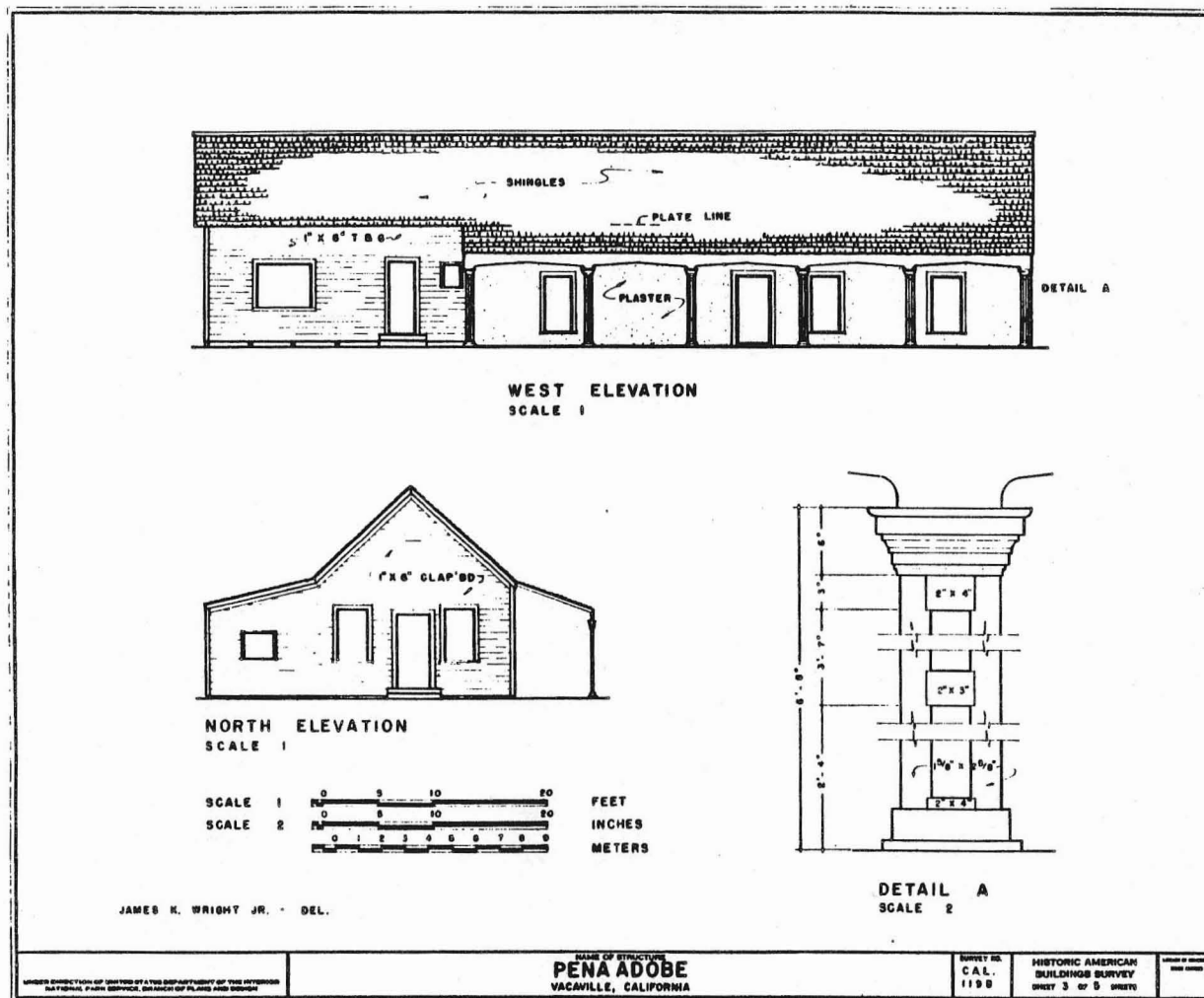


Fig. 12. Architectural drawing of the Peña Adobe home as it appeared in the 1880s.

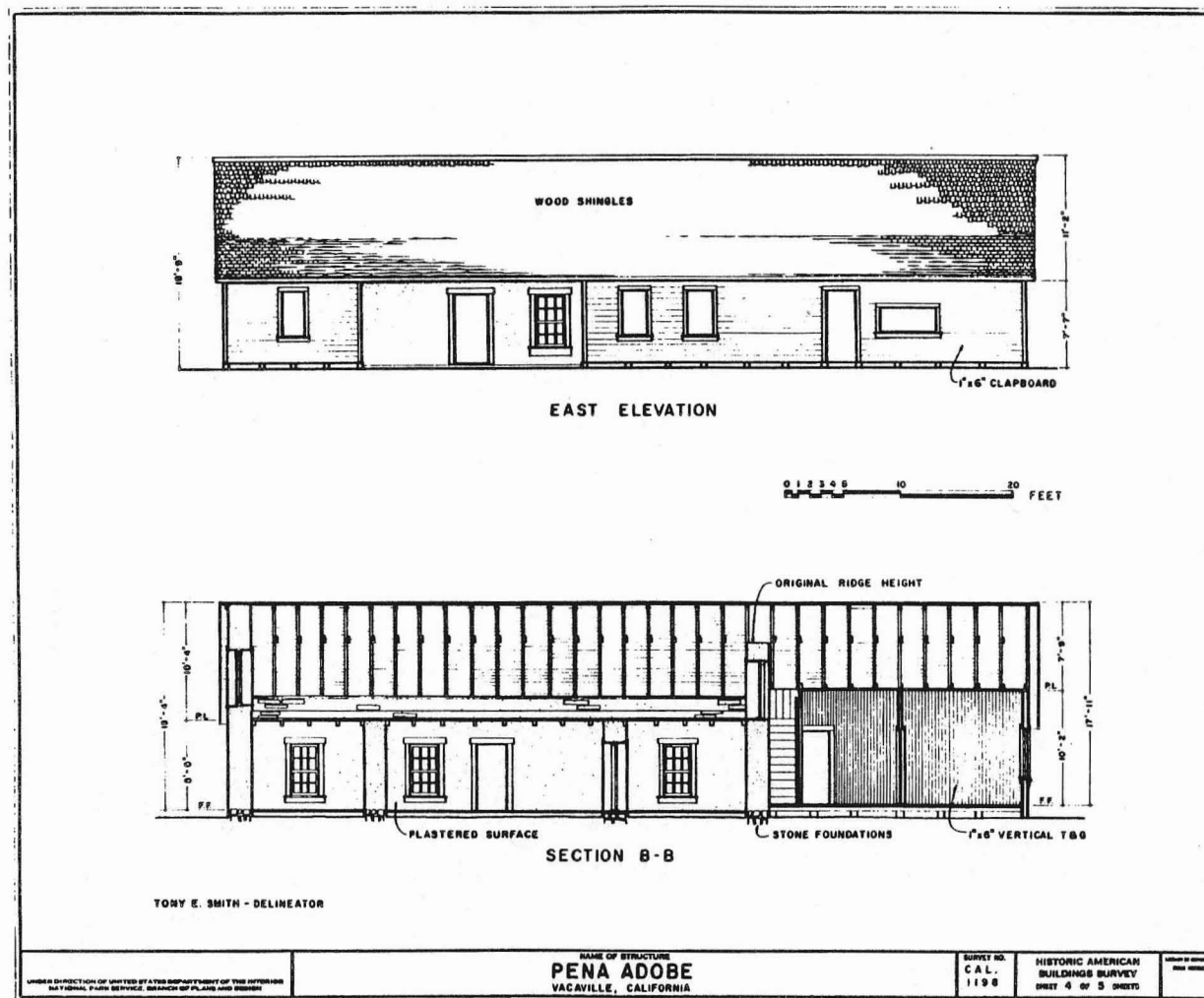


Fig. 13. Architectural drawing of the Peña Adobe home as it appeared in the 1880s.

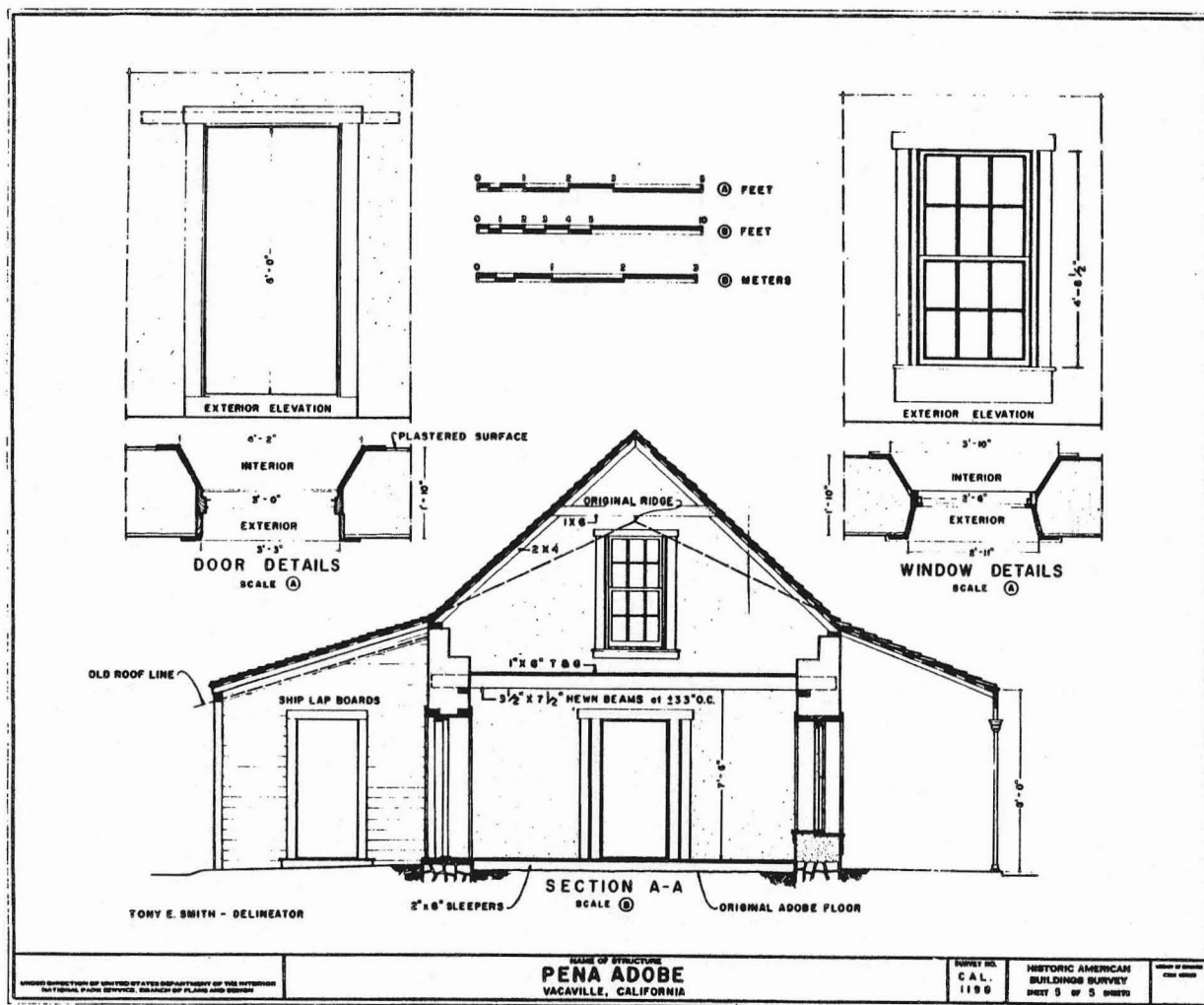


Fig. 14. Architectural drawing of the Peña Adobe home as it appeared in the 1880s.

1984). A 3.15 by 7.32-m addition was added to the east side of this 5.49 by 7.32-m frame structure.³

The home was also enlarged by enclosing the porches on the adobe to form four rooms, two on each side, off the east and west adobe walls.⁴ The new building dimensions were 12.27 by 15.34 m (excluding the northern 5.49 by 7.32-m addition) (Merle Curtice n.d.). These two rooms on each side of the adobe were separated by a covered porch which was aligned with the doors to the central adobe room.⁵ This enlarged home was entirely sheathed in redwood lap siding. There were no accesses to the four frame additions from inside the adobe. These rooms on the east side of the home were apparently heated by wood burning stoves, as an 1880s photo (Fig. 10) shows three stove pipes above the roof line, and a wood pile north of the building. Rose Coombs recalled that the Peña family used terracotta charcoal burners to heat the adobe (Merle Curtice, personal communication 1984).

The attic floor (when the 1962 restoration began) was probably not from the original circa 1842 construction. The floor was tongue-and-groove fir; the original was probably split redwood boards. The original ceiling beams had square nails embedded in them from the first attic floor. The tongue-and-groove floor was secured with round nails (Merle Curtice, personal communication 1983). The sawed fir

rafters found in 1962 were not from the original Peña home, but from circa 1880. This remodeling entailed raising the height of the roof (11.4 cm rise in 30.5 cm run).

Walls

The inside adobe walls were plastered, probably during the circa 1880 renovation (Merle Curtice, personal communication 1984).⁶ The plaster was removed in 1962 (Vallejo Times Herald 1962a:7).

OUTDOOR FEATURES

Well

Maria Dolores Peña Lyon, in an interview with Crystal (1933:82), stated that Vaca and Peña each "had a well dug beneath his kitchen floor and a hand pump was installed so that they no longer needed to go out of doors for a cool drink or for water for domestic purposes." The Peña Adobe (including additions) had no evidence of indoor plumbing (Merle Curtice, personal communication 1984). A well apparently drilled with a 7.6 cm auger was discovered 274 cm east of the adobe wall and 64 cm south of the northeast adobe corner.⁷ It had 9.04 m of 3.8 cm inside diameter lead pipe (Clifford Curtice 1963a). This may have been the well Lyon spoke of, but it was outside the Peña home. Florence

Martinelli Peña (personal communication 1983) remembered a well near the back door of the kitchen (northern addition). Rose Coombs (1967) mentioned a handpump located about 4.6 to 6.0 m east of the door to the central adobe room. This may be a different well than the above one, as she spoke to Young (1963b) of another well that was "near the big mulberry tree." In Lagoon Valley during the late 1880s a drilled, cased well and pump could be installed for thirty-five dollars (Wickson 1888:132).

Patio

The surface area (11N 5E; 11N 7E) under the north frame addition (detached from the adobe during the 1962 to 1965 restoration and moved a few meters north) was about 10.2 cm below the top of the adobe stone foundation. The floor was hard and appeared to have been obtained by mixing a surface layer of approximately 7.6 cm with soap plant fibers (Chlorogalum pomeridianum) and calcium oxide. A second floor of the same composition was found 2.5 cm to 3.8 cm below this one. Both surfaces gently sloped away from the northern adobe wall, extending at least 6.4 m. A hard surface on the east side of the adobe extended 4.88 m from the building. The ground surface around the northeast corner of the adobe appeared to have been made of adobe blocks (Clifford Curtice 1962c). These surfaces may represent patios.

Fired adobe blocks and clay which appeared to represent a fire place and oven were also found just north of the adobe (Clifford Curtice 1965).

OTHER BUILDINGS ON THE PEÑA ADOBE GROUNDS

Around 1860 the outbuildings near the adobe consisted of barns and blacksmith shop buildings (southeast of the adobe), two or three buildings used by workmen, and a toilet. The barnyard had a well (Coombs 1967).

The skeleton of a circa 1860 frame structure was standing in 1965. This tack building was located northeast of the adobe and measured (outside) 4.62 by 3.73 m (length of the building ran east and west). Building height was 2.45 m (from top single plate to bottom sill). The only entrance was on the southside, near the southwest corner.⁸

VACA ADOBE

Portia Hill, whose father John Westley Hill, purchased Manuel Vaca's Adobe, described the home to Helen Crystal (1933:57-58, Plate XVII) as follows: it was a long, low building about 7.32 by 19.51 m. With four rooms, the walls were about 61 cm thick and made of bricks 61 by 30.5 by 7.6 cm, cemented with mud. The interior of the adobe was plastered and whitewashed. The rafters and joists were of

rough timber. The front door had an upper and lower section. It had no covered porch (Hendry and Bowman 1940:424-K). The Vaca Adobe was destroyed by the earthquake of 1892 (Young 1971:11; Hoover, Rensch, and Rensch 1966:512).

OTHER HOMES ON RANCHO LOS PUTOS

Hendry and Bowman (1940:423a, 424, 424i-424m) documented six homes on Los Putos in addition to the Vaca and Peña adobes. These dwellings built in the 1850s were located in the far northeastern section of the grant along the south bank of Putah Creek.⁹ Three of the buildings were adobe, the remaining ones were framed structures. The adobe homes belonged to Jose Vaca (brother to Juan Manuel Vaca), Miguel Vaca, and Marcos Vaca. Francisco Peña, Gavino Peña, and Téofilo Vaca had frame houses. With the exception of Jose Vaca, these men were all sons of Juan Felipe Peña and Juan Manuel Vaca. Francisco Peña's home was one story about 6.1 by 4.57 m. Undoubtedly, other homes existed for the vaqueros on the rancho. Manuel Vaca is believed to have moved to the Putah Creek area after he and Peña argued about a land sale to William McDaniel (Hendry and Bowman 1940:424k).

NOTES

1. The 45.7-cm long drip line on the east side of the adobe has a maximum depth of 7.6 cm. Center of the drip line is 194.3 cm from the east face of the adobe. At least once this drip line was deliberately filled with yellow adobe soil to almost level it with the yard (Clifford Curtice 1963b).

2. The architectural drawings (Figs. 11-14) were financed by the National Park Service as a project under the direction of A. Lewis Koue as part of the Historic American Buildings Survey (HABS). Architect John N. Dehaas supervised the measurements and drawings of the Peña home in July and August of 1962. These architectural records are in the Library of Congress and De Long's (1980:63-68) Historic American Buildings.

3. The eastern wall of the east addition on the 5.49 by 7.32-m frame structure measured 2.27 m (from top of plate to surface of finished floor). This eastern wall had a 76.2 by 205.7-cm door opening located 2.25 m (to center) from the southeast corner of this addition. A 76.2 by 76.2-cm window in the north wall was located 1.48 m (to center of opening) from the east corner of the addition, and 97.8 cm from the finished floor (to top of window stool). The roof slope on this addition was a 5.1 cm rise on a 30.5 cm run.

4. The architectural drawings do not show the porches enclosed on the west side of the Peña home. The porches were enclosed to form two rooms attached to the west wall of the adobe (Merle Curtice, personal communication 1984).

5. The southwest frame addition measured (outside) 4.88 by 2.20 m. The height of this room (measured from the outside west slope) was 2.26 m. Room height from top of wood plate to original ground level was 3.5 m. The only exterior door opening was in the north wall. The northwest frame addition also had a length of 4.88 m. The two frame additions off the east adobe wall had no floor joists. Flooring was nailed to the girders. Fill dirt had been placed to a depth of approximately 10.2 cm between the girders (as within the adobe building) (Clifford Curtice 1963b).

6. A close examination in 1962 of the inside plastered adobe walls showed that cows hair had been mixed in the plaster while wet. The plaster in the central room was painted pink.

7. The well was discovered by Helen Newhall and Merle Curtice, on June 25, 1963. The lead was partially cased with iron irrigation pipe for more than 91.4 cm from the top. Outside diameter of iron casing was 7.6 cm (Clifford Curtice 1963a).

8. The southeast corner of this building was 16.52 m from the north-south base line and 26.34 m from the east-west base line (datum is exterior southwest corner of adobe). Roof sheathing (pine) was 2.5 by 10.2 cm (1 by 4 in.) spaced 7 cm apart (14 pieces on each side), sheathing starter board was 2.5 by 15.2 cm (1 by 6 in.). Rafters and girts were pine. Equidistant between the bottom sill and the single plate were girts between posts. The roof pitch was cut on a 15.2 and 22.9 cm gradient. The gable ran east and west. There were 12 (6 on a side) 5.1 by 10.2-cm (2 by 4-in.) pine rafters 2.44 m long and equally spaced but no barge rafters. Pine collar ties were 2.5 by 10.2 cm (1 by 4 in.). Roof sheathing overhang 15.2 cm beyond the wall rafters. Siding was vertical 2.54 by 25.4-cm (1 by 10-in.) and 2.54 by 30.5-cm (1 by 12-in.) rough sawed redwood. At least two shingle roofs had been on this building, and only square nails were used to secure them. The last sawed shingles were 40.6 cm redwood. The four perimeter sills were 10.2 by 15.2-cm (4 by 6-in.) rough sawed redwood with lap joints on corners and nailed (not doweled). These sat on native sandstone footings. Height (from ground to bottom of sill) was 30.5 cm. Four intermediate sills ran north and south. They were 10.2 by 10.2-cm (4 by 4-in.) rough-sawed equally spaced redwood timbers. Flooring ran east-west and was random 2.54 by 25.4-cm (1 by 10-in.) and 2.54 by 30.5-cm (1 by 12-in.) rough-sawed redwood. There were 2 vertical 10.2 by 10.2-cm (4 by 4-in.) pine center posts on the south wall about 1.52 m apart and 1 centered on the north side. The corner posts were 10.2 by 15.2-cm (4 by 6-in.) rough-sawed redwood. The door was on the south side of the building, near the southwest corner starting 47 cm from the corner. Its dimensions were 175 by 106.7 cm. The building was demolished but an aluminum 1.3 cm section of conduit was set to mark the southeast corner of this building. Rose Coombs in 1962 said that this building was used for tack storage (Clifford Curtice 1965).

9. Miguel Vaca Adobe: T. 8N, R. 2E, SW 1/4 of NW 1/4 Section 21 MDM. Marcos Vaca Adobe: T. 8N, R. 2E, NE 1/4 of NW 1/4 Section 21 MDM. Francisco Peña home: T. 8N, R. 2E, SW 1/4 of SW 1/4 Section 20 MDM. Téofilo Vaca home: T. 8N, R. 2E, SW 1/4 of NW 1/4 Section 21 MDM. Topographical information provided by Bert Hughes, member of the Vacaville Heritage Council.

Chapter 3

ANALYSIS OF GLASS ARTIFACTS

FROM THE PEÑA ADOBE

The following five chapters consists of a detailed descriptive analyses of the historic artifact assemblages. The format for discussing the Peña Adobe material culture is modeled after that used by Herskovitz (1978) in describing artifacts from Fort Bowie, Arizona. The artifacts are described in chapters representing their material composition (glass, ceramic, leather, metal, miscellaneous). These chapters are further divided. For instance, the chapter on glass artifacts consists of sub-categories: bottles, and pressed glass. Under the sub-categories are functional headings, such as "alcoholic beverages," and "proprietary medicines."

The majority of glass artifacts are bottles, and the "minimum number" of bottles in the combined collection is 97. This value was derived by counting complete, and partial bottles, and diagnostic fragments. The Peña Adobe bottle collection is small enough that numerous characteristics, such as bottle bases, necks, distinctive coloring, and embossing, have enabled me to classify certain fragments as representing one distinct bottle type. Also recovered were

stoppers, pressed glass objects, mason jar lids, and window glass. Many non-diagnostic glass fragments were recovered, about which little can be said.

Glass is made from siliceous sand, mixed with soda and lime, and heated to approximately 2500 degrees Fahrenheit. Glass consisting of only these basic ingredients is usually aquamarine in color (Beck 1973:16, 29). "Aqua" is the term applied to glass with varying hues of green and blue. "Flint" was the word used in the late 1800s to describe clear glass that contained lead (Maust 1965:45). "Amethyst" is flint glass which has turned a "violet" color due to the effect of solar radiation on manganese oxide which had been added to the glass as a bleaching agent. Glass that turns to "sun-colored amethyst" was generally made between 1880 and 1915,¹ and will be abbreviated SCA (Taylor 1971:78). "Opal" refers to the white, semi-opaque, or partially translucent glass, often called "milk glass." Opal glass was achieved by adding tin or zinc to the basic batch (Beck 1973:29). The remaining colors applied to Peña Adobe glass are self explanatory.

BOTTLES

Bottles are grouped into seven categories: non-alcoholic beverages, alcoholic beverages, proprietary medi-

ines, chemicals and medicinals, household and personal, food, and undetermined content bottles. These categories are those used by Robert M. Herskovitz (1978) in Fort Bowie Material Culture. The terminology for bottle shapes and neck finishes is derived from Herskovitz (1978:4-5), Wilson (1981:xv, 110-111), Switzer (1974:7-8) and Putnam (1965). Neck forms are frequently termed "finish" by members of the glass-making trade because they are the last areas formed on a blown bottle (Ferraro and Ferraro 1966:9).

NON-ALCOHOLIC BEVERAGE BOTTLES

Two soda/mineral water bottles have been identified from their lip and collar remains. They have applied, thick, rounded collars, often called "blob tops." This type of bottle was blown in a mould and produced in the United States circa 1850 to 1900 (Warman 1972:72). It is impossible to determine if these bottles contained soda or mineral water, as both products have been found in "blob-top" type bottles (Ferraro and Ferraro 1966:52-53). Thick collars on soda water bottles were needed to withstand the outward thrust of the wired-on cork (Wilson 1981:29). The heavy glass of soda bottles was also very functional in resisting carbonated pressures (Ferraro and Ferraro 1964:35, 37). These collars were formed by a tool, which presumably had a central cork-shaped part, inserted in the neck, with two

jaws that clamped around the abundantly applied gather of glass to shape the collar (McKearin 1970:104). One collar (Cat. No. 1-0-19) is light blue, the other (Cat. No. 1-0-148) a light green. Between 1860 and 1895 many types of stoppers or closures were invented and patented. The closure method(s) used on these two bottle fragments cannot be determined.

Mineral waters, containing dissolved mineral salts and gases, were generally used to relieve and prevent constipation (Ferraro and Ferraro 1964:38). They were also said to cure calculi (stones), either of the kidneys or liver, and indigestion (Ferraro and Ferraro 1966:53). Essentially, mineral waters were sold as "cure-alls."

Some bottled mineral waters came from naturally carbonated springs. Artificially carbonated water was first produced in the late eighteenth century by the English chemist, Joseph Priestley, when he invented a method for dissolving carbon dioxide in water (Beck 1973:67).

According to Beck (1973:73), the name "soda-water" seems to have grown from an early use of sodium bicarbonate to make an effervescent drink. The idea of flavoring this water with fruit juices, spices, extracts, aromatic roots, and sugar syrups rapidly followed (Wilson 1981:29). In 1843, flavors such as "sarsaparilla, lemon, ginger,

pineapple, winter green, orgeat (barley), strawberry, raspberry, blackberry, peach and vanilla" were being advertised (Beck 1973:73).

As only lips and collars remain of the two artifacts, it is impossible to ascertain where they were made or where the original contents were bottled. Ferraro and Ferraro (1966:54) tell us that other than imported varieties, few domestic sodas were shipped nationwide. There were many mineral and soda water manufacturers in the region, and it seems reasonable that these bottles may have come from one of them. The Napa Soda Springs are six miles north of Napa City, California (Valley Publishers 1974:11-12). These springs were purchased in 1870 by Col. J. P. Jackson and a plant was soon bottling mineral water (Fountain and Colcleaser 1968:5-6). Other manufacturers in the area were Eagle Soda Works of Sacramento (Schmeiser 1968:33), Tolenas Soda Springs of Solano County, San Francisco Soda Works, and Oakland Steam Soda Works, Inc., to name only a few (Fountain and Colcleaser 1968). Vacaville's soda bottling company was called "Solano Soda Works." The bottles pictured in Fountain and Colcleaser (1968:82), manufactured by this latter company, were crown-sealed.

ALCOHOLIC BEVERAGE BOTTLES

The alcoholic beverages represented are beer, champagne, and whiskey (Table 1).

Beer

Prior to 1873, beer was distributed exclusively in wood barrels and kegs. Beginning in that year, the use of pasteurization made the bottling of beer possible (Herskovitz 1978:7; Switzer 1974:9).

Enough embossing remains on two fragments (Cat. Nos. 1-0-171, 1-0-182) to identify them as representing a single beer bottle. The body of the bottle in its complete form was embossed "FREDERICKSBURG BOTTLING CO.," which circled a shield with the monogram "F. B. CO." in its center. Directly below was embossed "THIS BOTTLE NOT TO BE SOLD" (Tibbitts 1967b:39). The bottle was blown in a plate mould and had an applied lip (Tibbitts 1964:66; Munsey 1970:118). Wilson and Wilson (1968:172) give it a date of circa 1893-1917, while Munsey (1970:118) dates it circa 1890-1900. The Fredericksburg brewery was established in 1876 in San Jose, California, by Leinhardt and Ewald. The brand was not a great success until Schnabel and Denicke bought the brewery in 1880. With better brewing methods and expanded distribution, along with excellent advertising, it became one of the

best-selling beers in the West (Wilson and Wilson 1968:172). The Lang brothers were the proprietors of the Fredericksburg Bottling Company (Tibbitts 1967b:39). An advertisement states, "The General Agency of this CELEBRATED BEER is at 539 California Street, San Francisco" (Wilson and Wilson 1968:172). In 1904, the Fredericksburg Bottling Company operated at 1510-1512 Ellis, San Francisco, and advertised, "WHY Do Physicians Recommend FREDERICKSBURG BOTTLED LAGER?" (H. S. Crocker Company 1904:2046, 2056).

The Fredericksburg bottle was sealed with a porcelain head "Lightning" stopper (Cat. No. 1-0-585). The "Lightning" closure method was invented by Charles de Quillfeldt in 1875 and patented in the United States by Henry Putnam in 1882 (Lorrain 1968:42; Rock 1980:11; Munsey 1970:104). The "Lightning" stopper was a wire device having a toggle action that pulled a stopper into the neck of a bottle, locking it there until the toggle was released (Hotchkiss and Cassidy 1971:4, 92). Pictured on the Fredericksburg stopper (Fig. 59) is a black (brewery) building with "FREDERICKSBURG BOTTLING CO. S.F." written in white around the red border. The base of the stopper is printed in black "PAT'D/K. HUTTER/FEB. 7 1893" (refer to page 173 for information on this patent). This bottle was blown in a mould (Munsey 1970:118).

Table 1

GLASS ALCOHOLIC BEVERAGE BOTTLES

<u>Contents</u>	<u>Shape</u>	<u>Volume (Ounces)</u>	<u>Color</u>	<u>Finish</u>
Beer	Beer	?	Green	Beer
Beer	Beer	12	Green tint	Crown
Beer	?	?	Olive green	Beer
Champagne(?)	Champagne(?)	?	Olive green	?
Wine(?)	Wine(?)	?	Green	?
Wine or Champagne(?)	?	?	Light green	?
Whiskey	Picnic flask	?	Flint	Double ring
Whiskey(?)	Picnic flask(?)	?	SCA*	?
Whiskey	Union oval flask	?	Amber	Double ring
Unknown	Cylindrical	?	Brown	?

A complete beer bottle has the embossed basemark (Fig. 15) "J. GUND BR'G CO. LA CROSSE WIS.," circled around "ESTAB 1854." This bottle has a crown top, and therefore post-dates 1892 (Abbott 1970:24). The John Gund Brewing Company is one of six breweries listed in the La Crosse, Wisconsin, city directory for 1893-1894. The brewery was located on the corner of ninth and Mormon Cooley Road. John Gund Senior was president of the company, Henry Gund, secretary and treasurer, and John Gund Junior, superintendent. They advertised as manufacturers of "Extra Pale beer" (L. P. Philippi Co. 1893:145, 371, 379).

*Sun-colored amethyst

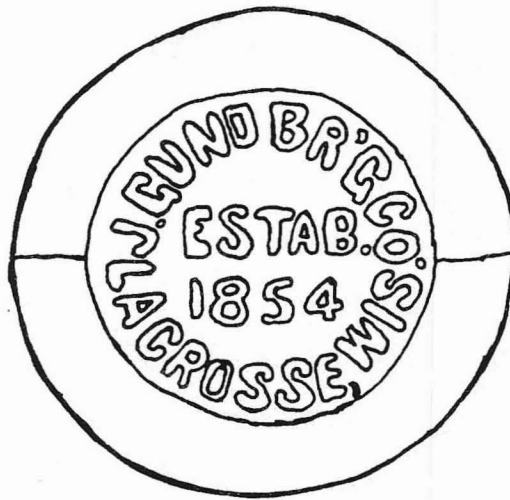


Fig. 15. Base of beer bottle
manufactured by the
John Gund Brewing
Company of La Crosse,
Wisconsin. Actual
size.

John Gund Senior was born in Baden, Germany, in 1830. He learned the brewer's trade in Germany, and after coming to the United States in 1848 he worked for two years in Dubuque, Iowa. From there he went to Galena, Illinois, and rented a brewery until 1854, when he came to La Crosse. Gund built the first brewery in La Crosse, on Front and Division Streets. In 1858, he, in company with G. Heilman, built the City Brewery and continued in partnership until the Autumn of 1872, when Gund sold out his interest to Heilman and built the Empire Brewery. The John Gund Brewing Company was organized and incorporated May 1, 1880, by John Gund Senior and his two sons, George and Henry (The Lewis Publishing Company 1892:173).

By 1885 the company was bottling beer as a specialty (Urban Publishing Company 1885:179). In 1892 the output of the J. Gund brewery was 50,000 barrels per year. They had 65 to 70 employees, excluding coopers, agents and teamsters. Their buildings covered about five acres, and their business was one of the principal industries of La Crosse and the largest brewery in the area, excluding Milwaukee (The Lewis Publishing Company 1892:174). They had agencies in Minneapolis, Albert Lea and Granite Falls, Minnesota; Aberdeen, Sioux Falls and Watertown, South Dakota; and Eau Claire, Wisconsin (Urban Publishing Company 1885:179, 378).

The La Crosse bottle was crown-capped. The "Crown-Cork" seal was patented by William Painter on February 2, 1892, and the Crown Cork and Seal Company was incorporated March 9, 1892, to market the cap. With this invention the inside of a metal cap was fitted with a cork disc which brought about an air-tight seal between the cap and the bottle. Painter patented most of the machinery that produced the caps, and that applied the caps to the bottles (Malone 1934:167-168; James T. White & Company 1944:129-130).

A beer bottle fragment (Cat. No. 1-0-153) has a hand-applied collar and lip that has a small chip. Beer and champagne bottles were sealed by corks held in position with wire bails. Sometimes an ice pick was used to remove the wire and pull out the cork. This procedure often chipped the bottle lip (Abbott 1970:22-23). Bottles with applied lips were made before 1900; the mouth was formed after being separated from the blowpipe (Adams 1969:114).

Wine and Champagne

Two containers are classified as wine or champagne bottles on the basis of their color and presence of a "kick-up." A "kick-up" or "push-up" is formed when the base of a bottle is pushed into its body cavity, mostly to provide stability and to deceive the purchaser of the bottle's true

volume (Jones 1971:63). They are common in wine and champagne bottles, which can usually be differentiated from each other on the basis of body shape and size. Unfortunately, only base fragments of the two bottles remain. One fragment (Cat. No. 1-0-144) is of very thick glass, and may represent a champagne bottle as they were made of heavy glass to withstand the pressurized carbon dioxide (Wilson 1981:19). More likely the thin bottle (Cat. No. 1-0-166) contained a non-sparkling wine.

The upper portion of a kick-up is all that remains of one bottle (Cat. No. 1-0-271). It is classified as a wine or champagne bottle on the basis of its kick-up and color. Green bottles were most generally used for champagnes because they were stronger, due to the composition of glass and the belief that green or black prevented undesirable light exposure effects on the wine (Van Rensselaer 1969:8; Munsey 1970:60).

Whiskey

Three whiskey bottles are represented at the Peña Adobe.

One nearly-complete flint picnic flask (Fig. 16) without embossing (Cat. No. 1-0-65) was recovered. A sun-colored amethyst picnic flask is tentatively identified from

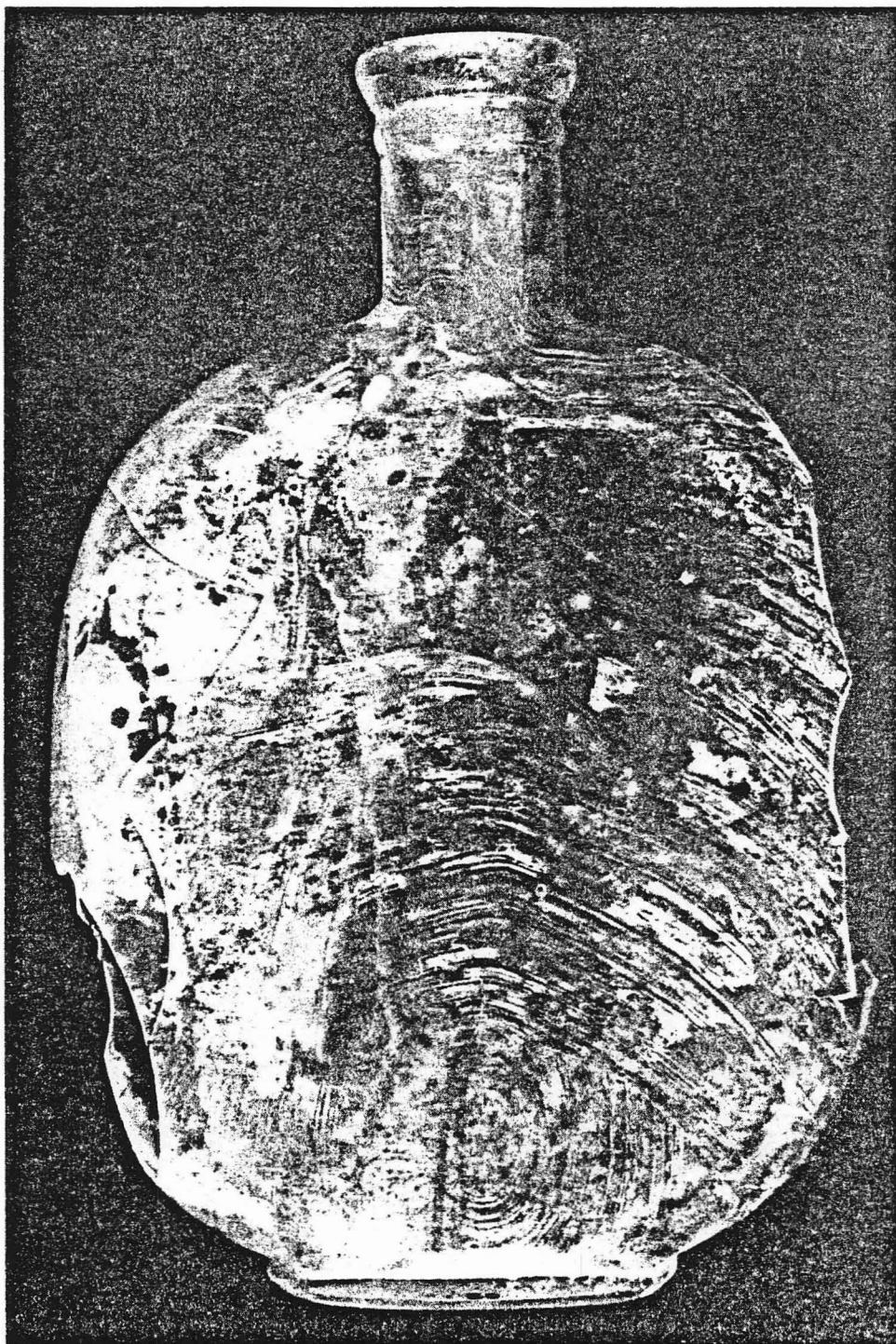


Fig. 16. Picnic flask whiskey bottle. Actual size.

a partial base fragment (Cat. No. 1-0-118). The flint picnic flask was sealed with a cork stopper, as was undoubtedly the sun-colored amethyst one (Ferraro and Ferraro 1966:56-57). This type of whiskey bottle was mostly made between 1880 and 1920 (Hotchkiss and Cassidy 1971:36).

The only complete whiskey bottle (Cat. No. 1-0-1375) in the collection is an amber-colored Union oval flask (Fig. 17). This flask was found during the 1962 restoration work under the northern frame addition. The double ring finish is crudely applied. After glass had been trailed around the bottle opening, the neck was reheated in a furnace to fuse the glass. The roughness of this applied lip indicates that this bottle probably dates earlier than 1870. The 1870s saw the advent of the "glory hole," a new type of furnace, which gave a smooth finish to bottles. "Glory holes" operated at a higher temperature than regular furnaces, causing the glass to fuse more completely (Munsey 1970:32). This bottle was blown in a mould and is "strap-sided," having two parallel mould seams on both sides of the bottle body (Adams 1969:116). One seam ends at the shoulder, the other at the neck finish. The base has a mould seam which curves around a small raised dot in the center, indicating this bottle was blown in a bottom-hinged mould (circa 1810 to 1880) (Munsey 1970:39).



Fig. 17. Union oval flask
whiskey bottle.
Actual size.

Unknown

The bottle (Cat. No. 1-0-155) listed with contents "Unknown" is believed to have contained an alcoholic beverage on the basis of its brown color and cylindrical shape.

PROPRIETARY MEDICINE BOTTLES

"Proprietary medicine" meant that those who manufactured the medicines had proprietary rights in formula, trade name, and packaging. The term "proprietary medicine" is used in this section instead of the misnomer, "patent medicine." Some English medicines bore "patents of royal favors" which were granted by the Kings of England. The English colonists favored these medicines and consequently American manufacturers began calling their products, "patent medicines." Patent in this case had nothing to do with the United States Patent Office (Ferraro and Ferraro 1964:58-59).

According to Tibbitts (1964:68), proprietary medicines were very popular from 1880 to 1910, although many were advertised in the newspapers as early as 1857 (Ferraro and Ferraro 1964:58). Before 1906 there was an annual national consumption of about 365 million bottles of proprietary medicine (Ferraro and Ferraro 1964:58).

Many of the proprietary medicines were very high in alcoholic content and some even contained narcotics, such as opium and heroin (Herskovitz 1978:13). It was these potentially harmful ingredients, along with the low curative powers of medicinals which resulted in the Pure Food and Drug Act of 1906. This act compelled manufacturers to print the ingredients of their medicines on the outside of each bottle (Ferraro and Ferraro 1964:59, 1966:25, 28; Tibbitts 1969:17). The combination of scientific discoveries, such as the "germ theory" (Beck 1973:64), coupled with the Pure Food and Drug Act, helped bring about the demise of proprietary medicines. A variety of proprietary medicine bottles was found at the Peña Adobe (Table 2).

Table 2
GLASS PROPRIETARY MEDICINE BOTTLES

<u>Manufacturer</u>	<u>Product</u>	<u>Volume (Ounces)</u>	<u>Shape</u>	<u>Finish</u>	<u>Color</u>
J. C. Ayer Co.	Sarsaparilla(?)	?	Panel	?	Aqua
Bristol	Sarsaparilla	?	Panel	?	Aqua
Edwin W. Joy Co.	Sarsaparilla	?	?	?	?
California Fig Syrup Co.	Syrup of Figs	?	Panel	?	Flint
Chas. H. Fletcher's	Castoria	2	Panel	Double bead	Aqua
Chesebrough Mfg.	Vaseline	1-1/2	Pomade	Ring	Flint
Perry Davis	Vegetable Pain Killer	?	Panel	?	Light green
Dr. J. J. McBride	?	?	Panel	?	Light blue

Sarsaparilla

Sarsaparilla, derived from various species of the Smi-lax plant was used extensively during the latter part of the nineteenth century, both for its medicinal value and its flavoring in beverages (Shimko 1969:13, 15, 17-19). Most sarsaparillas claimed to cure all blood disorders (Umberger and Umberger 1968:7). Sarsaparilla was also used in the treatment of syphilis, chronic rheumatism, scrofula (tuberculosis), gout, and skin diseases. Sarsaparilla was sold singly and with mercurials and iodides (Shimko 1969:11-12, 15).

Ayer. The Ayer Company was established in 1841 by James Cook Ayer, who obtained his degree in medicine from the University of Pennsylvania in the same year. Upon completing his degree, he purchased the Robbins' Drugstore in Lowell, Massachusetts (Shimko 1969:28). Ayer Company produced many products that sold well, largely due to an intense advertising campaign. By 1870, Dr. Ayer had contracts with 1900 newspapers and periodicals (Holbrook 1959:48). A glass fragment, (Cat. No. 1-0-71) which contained one of his products, was recovered. Enough of what is presumed to be an indented back panel remains to make out the embossed words "LOWELL/MASS USA." Ayer's Cherry Pec-

toral, Ayer's Ague Cure, or Ayer's Sarsaparilla were possible contents. Possibly, it was sarsaparilla. Several sources (Umberger and Umberger 1968:11; Shimko 1969:28; Wilson 1981:43-44) show "Ayer's Sarsaparilla" and "Ayer's Compound Extract of Sarsaparilla" as being embossed, "LOWELL" with "MASS USA" directly below.

Ayer's American Almanac for 1868 claimed that its Compound Extract of Sarsaparilla was a specific antidote in nearly, if not quite all, cases of "scrofula" (glandular ulcers and tuberculosis) (Tibbitts 1963:34). According to one of their trade-cards,

if there is a lurking taint of Scrofula about you, AYER'S SARSAPARILLA will dislodge it, and expel it from your system. For the cure of the disorders, lassitude and debility peculiar to the Spring, it has proved to be the best remedy ever devised (Bartholomew 1970:94).

Ayer's Sarsaparilla also cured complaints arising from "impurities of the blood." A trade card (Tibbitts 1969:12) concerning this matter stated:

HOW FAIR

"How fair she grows from day to day,"
Her Life an ever-smiling May!
And yet not always thus she grew,
Nor health and beauty always knew;
For once her checks were covered o'er
With "horrid pimples" by the score,
Which marred her face and made her sad;
And all because her blood was bad.
The means of cure she sought with care,-
At last, of Doctor J. C. Ayer,
Of Lowell, heard, a chemist skilled,

He who from healing roots distilled
 An EXTRACT, potent to replace
 The bloom of youth upon her face,
 And make her blood as pure again
 As when a merry child of ten.
 "I'll see!" she said, and off she hied,
 A bottle bought, and quickly tried,
 SARSAPARILLA was the name
 By which this Extract gained its fame.
 "Oh happy day," she cried; for, lo!
 The pimples soon began to go;
 And now, the fairest of the fair,
 She lives to bless the name of AYER!

Another Ayer trade card claimed that the ingredients of its Sarsaparilla were held in "high repute for their alterative, diuretic, tonic, and curative properties," and that their product was "by far the most economical and reliable blood-purifying medicine that can be used" (Bartholomew 1970:94). Shimko (1969:29) gives the following formula for each fluid ounce of Ayer's Sarsaparilla: sarsaparilla root (10 grains), yellow dock root (8 grains), licorice root (8 grains), cinchona red bark (6 grains), buckthorn bark (4 grains), Stillingia root (4 grains), burdock root (3 grains), senna leaves (2 grains), black cohosh root (2 grains), pokeroot (1 grain), iodide of potassium (4 grains), and glycerin, C. P. (3-1/2 drachms). Oils of sassafras and wintergreen were added as flavoring. The formula states that the product was "entirely free from alcohol." Holbrook (1959:50) found a source in Collier showing that Ayer's sarsaparilla contained a high percentage of alcohol, and Shimko

(1969:19) found an early 1900s magazine that gave the alcoholic content of Ayer's sarsaparilla as 26.2 percent.

Bristol. One large fragment (Fig. 18) remains of a sarsaparilla bottle (Cat. No. 1-0-45) manufactured by C. C. Bristol of Buffalo, New York. Bristol marketed sarsaparilla between 1832 and 1918 (Shimko 1969:38). This product came in a bottle embossed: "BRISTOL'S" on an indented side panel; "GENUINE/SARSAPARILLA" on an indented front panel, and "NEW YORK" on the opposite indented side panel. The back panel was left plain for a paper label (Umberger and Umberger 1968b:12). A trade card recovered by Shimko (1969:38) states that Bristol's Sarsaparilla is, "the most potent and reliable of all purifiers and regulators of the Blood and humors." Although Bristol was challenged around 1836 by DR. EASTERLY'S SARSAPARILLA, it was still being handled by Blaumauer-Frank Drug Co. of Portland, Oregon, in 1911-12 and by Lanman & Kemp, New York, in 1918.

Joy. A jar (missing from the collection) was inscribed "Edwin W. Joy Co., San Francisco," and on its side "sarsaparilla" (The Vacaville Reporter 1964:1). Joy is listed in 1879 as a chemist and apothecary on the northeast corner of Post and Mason (Francis, Valentine and Company 1879:474). Joy's advertised on the back cover of the 1918 Crocker-Langley San Francisco Directory "ELASTIC HOSIERY/SURGICAL



Fig. 18. Proprietary medicine bottles. Bristol sarsaparilla bottle fragment originally embossed "GENUINE SARSAPARILLA;" fragment of bottle manufactured by the California Fig Syrup Company; Chesebrough Vaseline pomade jar; panel fragment embossed Dr J. J. Mc Bride. All actual size.

INSTRUMENTS/ABDOMINAL BELTS/ DRUGS, ETC." They had relocated to the corner of Sutter and Kearny Streets (H. S. Crocker Company 1918:925, 1914). An advertisement in the Vacaville Reporter (1967:11) boosted:

Joy's for the Jaded and Good Health for all Man-kind. JOY'S VEGETABLE SARSAPARILLA. is made from herbs, and contains no mineral drugs or deadly poison. Joy's Vegetable Sarsaparilla robs the blood of all its impurities, and courses all these impurities through nature's own proper channels. Joy's Vegetable Sarsaparilla cures Dyspepsia, Chronic Constipation, Liver Complaints and Kidney Affectons. Joy's Vegetable Sarsaparilla prevents tired feelings, staggering sensations, palpitation of heart, rush of blood to the head, dizziness, ringing in ears, spots before the eyes, headache, biliousness, constipation of bowels, pains in the back, melancholy, tongue coated, foul breath, pimples on face, body and limb, decline of nerve force dizzyspells, faint spells, cold, clammy feet and hands, sour risings, fatigue, insomnia, and all diseases of the stomach, liver and kidneys. Joy's Vegetable Sarsaparilla is sold by all druggists. Refuse a substitute. When you pay for the best see that you get the best.

Syrup of Figs

Part of an indented front panel (Fig. 18) was found to a bottle (Cat. No. 1-0-48) originally embossed "CALIFORNIA/FIG SYRUP CO." (Blumenstein 1965:71-72). The California Fig Syrup Co. manufactured its product in San Francisco, California, Louisville, Kentucky, and New York, New York. An advertisement (Maust 1965:108) for California Fig Syrup states that its syrup of figs product:

presents in the most elegant form the laxative and nutritious juice of the FIGS OF CALIFORNIA, combined with the medicinal virtues of plants known to be most beneficial to the human system, forming an agreeable and effective laxative to permanently cure HABITUAL CONSTIPATION and the many ills depending on a weak or inactive condition of the KIDNEYS, LIVER, STOMACH AND BOWELS, and is perfectly safe in all cases and therefore the best of family remedies. price: 50 cents.

The earliest San Francisco listing of the California Fig Syrup Company is the 1885 directory. The company advertised itself as "manufacturers of the pleasant, prompt and effective remedy for biliousness and constipation, Syrup of Figs, 30 Seventh" (Corran 1885:288, 1363). The latest listing for the company is the 1912 directory, at which time it was located on 398 Church (H. S. Crocker Co. 1912:369, 2119). Califig Sterling Products Inc. was the successor to California Fig Syrup Company (Blumenstein 1965:71-72).

Castoria

Castoria was sold as a laxative that was reputed to assimilate the food and regulate the stomach and bowels of infants and children (Tibbitts 1963:23; Blumenstein 1965:72). A complete bottle (Fig. 19) in the collection has CASTORIA on one side panel and Chas H. Fletcher's in script on the opposite (Cat. No. 1-0-211). This originally cork-stopped bottle (Umberger and Umberger 1966:22) was manufactured on an automatic bottle machine (seams pass through



Fig. 19. Panel shaped castoria bottle
manufactured by Chas. H.
Fletcher. Actual size.

lip) which dates it no earlier than 1903 (Ferrarro and Ferraro 1964:79; 1966:23).

Vaseline

An intact pomade jar (Fig. 18) is embossed "CHESEBROUGH MFG CO/VASELINE." According to Herskovitz (1978:14), Robert A. Chesebrough introduced this petroleum jelly product in 1859, and the term, "Vaseline," was registered in 1878 as trademark patent #6041. The jar (Cat. No. 1-0-239) was blown in a mould and has an applied finish. The vaseline was protected with a cork stopper (Umberger and Umberger 1966:28).

Pain Relievers

Perry Davis. "Perry Davis's Vegetable Pain Killer" was marketed in 1840 by Perry Davis & Son, of Providence, Rhode Island (Baldwin 1973:144). The manufacturer claimed its product would immediately relieve any case of piles, dysentery, cholera morbus, and pain from bruises or bites (Wilson 1981:40). Donald Colcleaser (1967:14) found "Pain Killer" advertised in a trade card for 1880:

a recognized cure for all summer complaints, diarrhea, dysentery, colic, burns, bruises, cuts and when mixed with molasses or syrup, made the best medicine in the world for coughs, colds, etc.

Herskovitz (1978:14) found an 1874 advertisement for "Pain Killer" stating it was an effective remedy for "asthma, canker, and rheumatic difficulties." "Pain Killer," according to an analysis by Western Druggist, contains: gum myrrh 2-1/4 lbs., capsicum 10 oz., gum opium 8 oz., gum benzoin 6 oz., gum guaiac 3 oz., and grain alcohol 5 gallons (Holbrook 1959:153). The product was sold for more than 60 years (Baldwin 1973:144-145). Two fragments (Cat. Nos. 1-0-1062, 1-0-1063) remain from a Perry Davis bottle. The bottle was embossed "DAVIS" in a small indented panel not covering the entire front. One side was embossed "PAIN KILLER" and the other, "Vegetable" (Blumenstein 1965:74; Umberger and Umberger 1969:29). Perry Davis's Pain Killer was one of the few proprietary medicines to survive the Pure Food and Drug Act. "Pain Killer" was still being sold in the United States and Canada in 1958 (Holbrook 1959:149, 155).

Dr. J. J. McBride. Two fragments (Cat. Nos. 1-0-46, 1-0-113) remain of a bottle once embossed "Dr/J. J. McBRIDE" on an indented front panel (Fig. 18) and "KING OF PAIN" on the indented back panel (Tibbitts 1963:13). Dr. McBride is cited by Holbrook (1959:197-198) as sponsoring medicine shows in the West at which he claimed his nostrum would instantly cure all aches and pains. The product was marketed at the end of the Civil War.

CHEMICAL AND MEDICINAL BOTTLES

Medicine Bottles

The bottles listed in Table 3 are presumed to have contained chemicals or nonproprietary medicines based on their size, shape, finish and color (Fig. 20). H. E. Putnam's (1965:29-32, 38) Bottle Identification lists all of the bottles in Table 3 as prescription wares. These "apothecary" bottles were mass-produced and sold in bulk to pharmacists and hospitals for dispensing prescriptions. Most of these bottles are not embossed. Medicine bottles were often plain because paper labels would carry pertinent information (Schwartz 1969:142). Proprietary items from local firms mostly used privately-labeled stock bottles (Maust 1965:107). Some of the basemarks and other embossing deserve comment:

"D. M. Stockman". An apothecary jar (missing from collection) unearthed during restoration work was inscribed on its side, "D. M. Stockman, Pioneer Drug Store, Suisun, Calif." (The Vacaville Reporter 1964:1). D. Merrill Stockman was a native of New York, coming to Suisun in 1858 (Fraser 1879:425). Thompson and West (1878:67) listed him as in the druggist and stationery business.

Table 3

GLASS CHEMICAL AND MEDICINAL BOTTLES

<u>Shape</u>	<u>Volume (Ounces)</u>	<u>Finish</u>	<u>Color</u>	<u>Basemark</u>	<u>Cat. No.</u>
Baltimore oval	2	Prescription	Flint		1-0-231
Baltimore oval	6-1/2	Prescription	Flint		1-0-216
Baltimore oval	7	Prescription	Flint		1-0-195
Blake, round					
cornered tall	6-1/2	Prescription	Flint	<u>Rex</u>	1-0-214
Blake, tall	9	Prescription	Flint		1-0-213
Fluted prescription	1/3	Wide mouth patent	Flint		1-0-244
French square	1/4	Prescription	Flint	W T CO L U S A	1-0-248
French square	1	Prescription	Flint	H	1-0-224
French square	3-1/2	Prescription	Flint		1-0-208
French square	5	Prescription	Flint		1-0-209
French square	7	Prescription	Flint	MCC	1-0-210
French square	8	Prescription	Flint		1-0-215
French square	10	Prescription	Flint		1-0-268
Golden gate oval	3	Prescription	Flint	MCC	1-0-204
Philadelphia oval	1	Prescription	Flint		1-0-223
Philadelphia oval	1-1/3	Prescription	Flint	MCC	1-0-222
Philadelphia oval	2	Prescription	Flint		1-0-247
Philadelphia oval	2	Prescription	Flint	M. C. C.	1-0-212
Philadelphia oval	2	Prescription	Flint	2	1-0-225
Philadelphia oval	4-1/2	Prescription	Flint		1-0-197
Philadelphia oval	4-1/2	Prescription	Flint		1-0-217
Philadelphia oval	5	Prescription	Flint		1-0-157
Pomade/morphine	1-1/2	Wide mouth patent	Flint	e?	1-0-245
Pomade/morphine	2	Wide mouth bead	Light blue	19	1-0-233
Pomade/morphine	?	Wide mouth patent	Flint	.	1-0-111
Round prescription	2	Prescription	Flint	P. D. & Co. 92	1-0-226
Round prescription	?	Prescription	Light green		1-0-165
Vial	?	?	Cobalt blue		1-0-1077
?	?	?	Cobalt blue		1-0-187
Unknown	?	?	Flint	COD	1-0-134

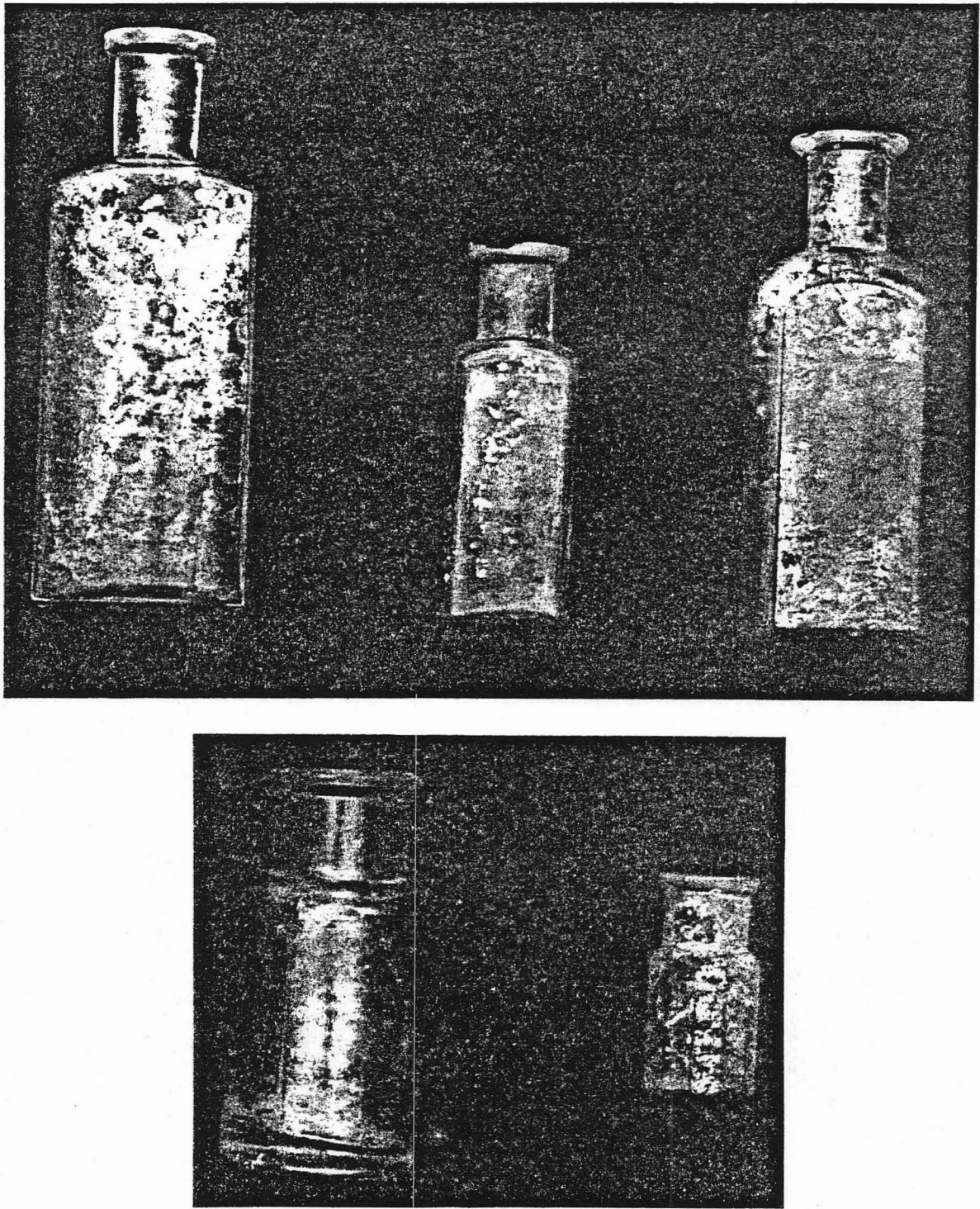


Fig. 20. Glass medicine bottles. Upper row: Golden gate oval; French square; Baltimore oval. Lower row: pomade/morphine jar; fluted prescription. Artifacts shown two-thirds actual size.

"Rex". The name "Rex" appears in italics on the bottom of a plain, oblong, flat-paneled patent-medicine bottle of a design known as a "Blake" bottle. Toulouse (1971:440) believed "Rex" was most likely a name applied by the bottle maker to a line of stock patent-medicine bottles. He gave a possible date of 1880 to 1900 for this bottle.

"McC". There are several bottles having basemarks with variations of the initials "McC." These bottles appear to have been manufactured by William McCully & Co. of Pittsburgh, Pennsylvania. The company operated from 1841 to circa 1886 (Toulouse 1971:351-353). William McCully learned glassblowing in Bakewell's Grant Street factory in Pittsburgh, and later worked for Frederick Lorenz in the Pittsburgh Glass Works. In 1829 he began a partnership in Pittsburgh with Captain John Hay and built the Union Flint Glass Works, which was destroyed by flood and fire in 1832. The partnership was dissolved, and McCully rebuilt the plant later that year, naming it the Phoenix Glass Co. By 1840 he had acquired two plants in the Williamsport area of Pittsburgh. McCully and another partner, A. W. Buchanan, formed a loose partnership with Frederick Lorenz, and his associate, Thomas Wightman, in 1841. In 1851 the partnership was dissolved and McCully & Co. continued. William McCully died in 1859, but the firm was continued by his son, John, and several partners (Switzer 1974:72-73).

"H". Several glass companies used the letter "H" as a bottle identification. These companies were: Holt Glass Works, Hart Glass Manufacturing Co., and H. J. Heinz Co. (Toulouse 1971:231-233, 236-238). The Holt Glass Works, which operated between 1893 and 1906, seems to have been the most likely manufacturer of the French-square bottle embossed "H". The company was located in West Berkeley, California, making it a likely candidate. According to Toulouse (1971:231), Heinz made bottles only for its own consumption, and the Hart Glass Co. of Bellaire, Ohio, and Dunkirk, Indiana probably supplied only the eastern trade.

"W T CO". The French-square bottle found at the adobe, and embossed "W T CO," was manufactured by Whitall-Tatum & Co. of Millville, New Jersey. Between 1838 and 1844 the plant was operated by Scattergood, Haverstick & Co. At this time, John M. Whitall took over Haverstick's share of the company. Scattergood's retirement in 1844 allowed Whitall's brother, Israel F. Whitall, to enter the company. Then in 1848 Edward Tatum joined, and the firm of Whitall, Bro. & Tatum was formed. In 1857 the firm purchased the "South Millville" plant and turned it into a flint factory. That same year Israel F. Whitall withdrew, allowing Whitall and Tatum to continue in business until 1938 (Toulouse 1971:544-547). This bottle was made in an iron mould.

"P. D. & Co.". Parke, Davis & Co. of Detroit, Michigan is represented by a round prescription bottle, embossed on its base "P. D. & Co." Beginning with incorporation in 1875, company initials were placed on their pharmaceuticals. After 1881, sales offices were rapidly established throughout the United States (Toulouse 1971:417-418).

Philadelphia Oval. Three of the "Philadelphia oval bottles" (Cat. Nos. 1-0-197, 1-0-217, 1-0-157) have a "4" embossed on the upper portion of their front flat-panel. A smaller "Philadelphia oval" (Cat. No. 1-0-247) has a "2" embossed in the same place. Inside this latter bottle is a dark brown residue. All four of these bottles have small embossed hatch marks (Table 3) on their bases. Unfortunately, no information could be found concerning these marks.

Unknown. A fragment (Cat. No. 1-0-134) with "COD" embossed on its side is perhaps a remnant of a bottle containing cod liver oil. Maust (1956:107) has a starting list of ten proprietors of cod liver oil, which gives one an idea of the popularity of this item.

Chemical Bottles

Aside from the above nonproprietary medicinals are the remains of what Don Geer (personal communication 1983) believes to be two poison bottles. One bottle (Cat. No. 1-0-1077) may represent a Maryland company, as it bears the letters, "MD." The only letter discernible on the second fragment is a "Y." The glass is "sickened" on this fragment in a manner characteristic of chemical exposure (Don Geer, personal communication 1983). Both bottles are cobalt-blue, the most popular color for poison bottles, according to Munsey (1970:162).

Bottle Technology

All of the bottles in this section were blown in moulds. The glassblower would gather molten glass at the end of his blowpipe and blow the glass into a small bubble. This glass was then placed inside a mould, which usually consisted of several hinged pieces, and blown to take the form of the mould. Seams are left on the bottle at points where the mould sections came together (Ferraro and Ferraro 1964:81). Referred to as "date lines," these seams can sometimes determine approximate age of the bottle (White 1978:62). The seams on these bottles travel to the upper

portions of the neck but not through the lip, dating them anywhere between 1860 and 1900 (Adams 1969:117).

Three Piece Mould. One of the pomade/morphine bottles (Cat. No. 1-0-245) was blown in a three piece mould. This type of mould consisted of a one-piece body and a two-piece hinged section for the neck and shoulder. The three-piece mould put one seam around the circumference of the bottle a little below the shoulder and two seams vertical to the circumference seam, which travel up the neck. In this particular bottle, the seam extends almost to the top of the lip. Three-piece moulds were used from 1809 until the 1880s when manufacturers of glass began using semi-automatic methods (Kendrick 1963:27; Abbott 1970: 12).

Turn Mould. An incomplete pomade/morphine bottle (Cat. No. 1-0-111) appears to have only a circumference seam near the base of the bottle. This bottle may have had body seams which were "erased." Bottle seams can be obliterated by turning the bottle in the mould. Wooden moulds become charred and are easily turned on a newly formed bottle. When metal moulds replaced wooden ones, manufacturers put a paste inside the moulds which allowed the bottle to slide. These metal moulds were invented about 1860, but their use became most common between 1880 and 1900 (Kendrick 1964:31). The neck of this bottle is ground for a stopper.

"Chilled Iron" Mould. The remaining bottles were also mould-blown. They all have a circumference seam where the base joins the body of the bottle. Two mould seams also travel up the body of these bottles and disappear on the neck. This indicates that the moulds for these bottles had a base and two body sections. These bottles appear to have been blown in a "chilled iron" mould (circa 1870), which refers to the method by which the mould was made (surface of the mould was not cold). Bottles blown in this type of mould, which was designed by Michael Sweeney of Martin's Ferry, Ohio, have a smooth glass finish (Ferraro and Ferraro 1966:3; Lorrain 1968:40-41).

Lipping Tool. In 1856, Amasa Stone patented the first lipping or finishing tool in the United States (Rock 1980:9). With this invention, the neck of the bottle was reheated and a glob of molten glass was applied to the neck. A metal insert of a desired size was placed in the neck opening and metal flanges grasped the neck's exterior, applying pressure toward the central insert. As the tool rotated, the neck became smooth, free of blemishes, and mould seams on the bottle faded into the area of the applied lip (Ferraro and Ferraro 1966:13). It is believed the prescription finish bottles in this section (except for Cat. No. 1-0-165) were manufactured by such a tool.

HOUSEHOLD AND PERSONAL BOTTLES

The bottles that contained household and personal products are summarized in Table 4.

Hair Dressing

A second Ayers product is represented in the collection. The bottom of this mould blown "Hair Vigor" bottle (Fig. 21) is embossed "AYER" in an indented oval panel. The bottle (Cat. No. 1-0-30) originally had a paper label. Shimko (1969:29) gives the ingredients for this product as: "glycerin, quinin [sic], sodium chlorid [sic], capsicum, sulphur, sage, alcohol, water and perfume." An Ayers trade card, found by Tibbitts (1969:84), states that:

IN AYER'S HAIR VIGOR we combine in one preparation, superior to all others for toilet use, the choice ingredients requisite to restore the youthful appearance of the hair, and render it strong, vigorous, and abundant. This elegant preparation restores gray hair to its original color, prevents baldness, preserves the hair and promotes its growth, and cures dandruff and all diseases of the scalp; while as a dressing for ladies' hair, rendering it soft, pliant, and glossy, there is nothing more agreeable, nor more essential to a complete toilet. It is colorless and elegantly perfumed; and its immediate softening and beautifying effects are very lasting, making it the most economical as well as the best dressing in the world.

The bottle shape designation, "hair restorer" in Table 4, is derived from Putnam (1965:84).



Fig. 21. Ayers hair dressing bottle.
Actual size.

Perfume

Based on its size and shape, one lightly sun-colored amethyst bottle probably contained perfume. The bottle (Cat. No. 1-0-53) has vertical ribbing patterns made in a pattern mould (Beck 1973:32).

Table 4

GLASS HOUSEHOLD AND PERSONAL BOTTLES

<u>Contents</u>	<u>Manufacturer</u>	<u>Volume (Ounces)</u>	<u>Shape</u>	<u>Finish</u>	<u>Color</u>
Hair dressing	Ayers	7	Hair restorer	?	Aqua
Perfume	?	3/4	?	?	SCA*
Shoe polish	Whittemore	5-1/2	Oval polish	Bead	Aqua

Shoe Polish

The mould blown "Whittemore" bottle (Fig. 22) listed in Table 4 is cited by Blumenstein (1966:100-101) as having contained shoe dressing. The front indented oval panel of this shoe polish bottle (Cat. No. 1-0-42) reads "Whittemore/Boston/U. S. A." David Whittemore of Whittemore

*Sun-colored amethyst

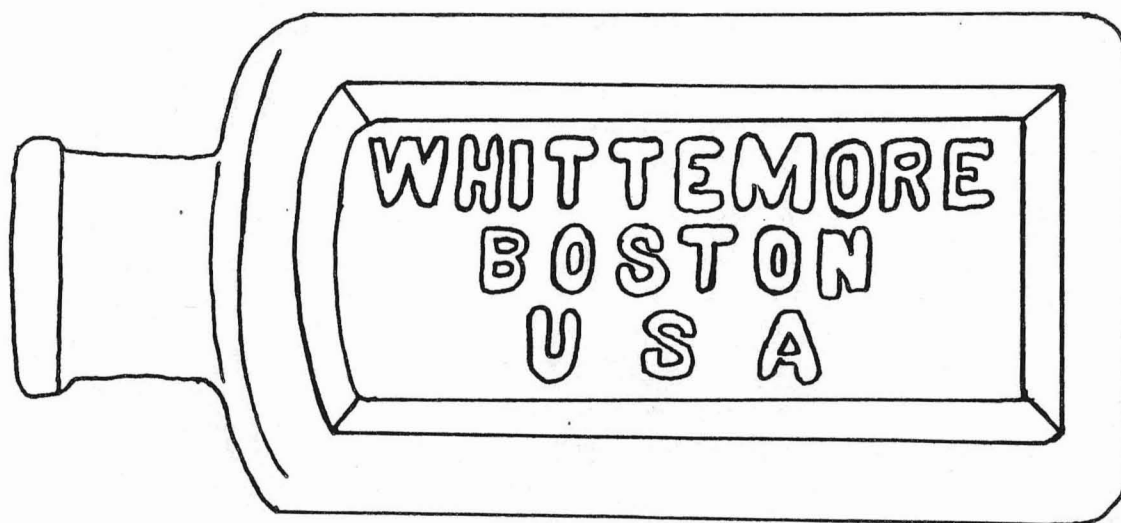


Fig. 22. Shoe polish bottle manufactured by Whittemore of Boston, Massachusetts. Actual size.

& Bean is listed in The Boston Directory for 1868 on 36 Chardon, and 30 Pearl Street (Sampson, Davenport and Company 1868:615-616, 644, 956). In addition to the Union Wax-Thread Sewing-Machine, Champion Pegging-Machine, inks, and varnishes, they advertise dressing and blacking. David Whittemore was succeeded by Whittemore Bros. & Co. (J.Q.A. and Charles Whittemore; A. Paine). They advertised in the 1873 Boston Directory as manufacturers of "leather dressings, blackings, inks, varnishes, stains, black and white liquid wax, channel cement, improved wax oil and hard wax." Their office and factory was located on 100 Lincoln Street (Sampson, Davenport, & Co. 1873:821, 1032). The 1885 Boston Directory listed Whittemore, Woodbury, & Co. (F. H. Whittemore, C. F. Woodbury, S. B. Whittemore) in addition to Whittemore Brothers & Co. as manufacturers of leather dressing and blacking. Their address was 34 and 36 Hamilton (Sampson, Murdock, and Company 1885: 1149-1150, 1216, 1295). Both companies were still in business at the turn of the century (Sampson, Murdock, & Company 1901:1824). This bottle has an "E" basemark. Toulouse (1971:171) believes the letter may be only a bottle size, perhaps, a series designation, or it may be the identification of a glass company. The designation, "oval polish," is taken from H. E. Putnam's Bottle Identification (1965:64).

FOOD BOTTLES AND JARS

Food bottles in the collection are listed in Table 5.

Mustard

On the basis of shape and size, one partial (mould blown) bottle (Cat. No. 1-0-52) has been identified as a mustard container. Putnam (1965:198) and others (Blumenstein 1965:137-138; Kauffman and Kauffman 1966:8; Switzer 1974:48-49) illustrate barrel mustard bottles which resemble the Peña Adobe find.

Oil and Vinegar

One fancy bottle neck (Cat. No. 1-0-49) is believed to have come from a cruet for oil and vinegar (Don Geer, personal communication 1983).

Sauces

Peppersauce. One mould blown, sun-colored amethyst peppersauce bottle (Fig. 23) has been identified from illustrations in Putnam (1965:210) and Blumenstein (1965:121-122) (Cat. No. 1-0-196).

Yee Chun Sauce. One hexagonal bottle (Fig. 23) is embossed in Chinese characters "Yee Chun Sauce Factory"



Fig. 23. Glass food bottles. Left: peppersauce bottle. Actual size. Right: Yee Chun sauce bottle. Four-fifths actual size.

(Julia NG, personal communication 1983). Directly below is an embossed Chinese junk. Although the seams on this screw-top bottle (Cat. No. 1-0-196) run to the top of the neck, its over-all crudeness suggests that it was blown in a mould. From the onset of the Mason jar industry, screw-tops could be formed in the original mould on wide-mouth vessels. After the body and neck were formed, the bottle was broken from the blowpipe and the opening sanded (Kendrick 1964:37). The ground lip on this sauce bottle is irregular. The specimen has numerous small bubbles, typical of pre-1920 bottles. The bubbles are a result of gases in the molten glass (Kendrick 1964:47).

Table 5

GLASS FOOD BOTTLES AND JARS

<u>Contents</u>	<u>Manufacturer</u>	<u>Shape</u>	<u>Volume (Ounces)</u>	<u>Finish</u>	<u>Color</u>
Mustard	?	French barrel mustard	?	Wide mouth extract	Flint
Oil and Vinegar(?)	?	?	?	?	Flint
Peppersauce	?	Oval ring pepper sauce	?	Double bead	SCA*
Pickles(?)	?	Cathedral pickle(?)	?	?	Green
Sauce	Yee Chun	Hexagonal	12	Screw	Flint
?	Ball	Round Fruit jar	16	?	Aqua
?	?	Round Fruit jar	16	?	Aqua

*Sun-colored amethyst

Pickles

Cathedral-type pickle jars were produced in America between 1880 and 1920 (Beck 1973:85). "Cathedral pickle" has been tentatively identified as the original shape of a bottle fragment (Cat. No. 1-0-33). This artifact has a raised scallop pattern on the edge of an indented panel. These diagnostic features are shown on a bottle pictured in Umberger and Umberger (1966:41). The bottle is believed to have contained pickles, although some peppersauce bottles were also of the cathedral-type (Beck 1973:86).

Fruit Jars

"Mason" is now a generic term for fruit jars. The name is derived from John L. Mason who patented the "cheapest and easiest made jar and seal" in 1858 (Toulouse 1969:340). This was a threaded-neck glass jar which used a zinc and glass cap closure (Umberger and Umberger 1967:2).

Ball Brothers. Two fruit or "Mason" jars were recovered. One almost complete jar (Cat. No. 1-0-159) was manufactured by the Ball Brothers Glass Company of Muncie, Indiana, which began operations in 1888. Ball brothers were early manufacturers of Mason type fruit jars, after the Mason patents expired (Toulouse 1971:66-67). The jar is embossed "Ball," in script, above "MASON" in block letters

on its cylindrical body. The base is embossed with a "K" and a "9." Ball produced many variations, and dating of any given style is difficult. The company began to use script lettering by the turn of the century (Toulouse 1971: 67).

Ball manufactured handmade as well as machine-made "BALL MASON" style jars. Toulouse (1969:31-32) gave a date of circa 1895-1910 for the handmade jars and circa 1900-1920 for the machine-made ones. In 1898, the hand-powered F. C. Ball machine for semi-automatic operation was developed from patents by A. L. Bingham and F. C. Ball. With this machine, glass was pressed inside a mould in a series of operations with a plunger. Between 1900 and 1906 Ball developed and patented the Ball-Bingham power machine, which required only the delivery of glass to the machine and the hand carrying of the completed bottles to thelehr. In 1910, they equipped a factory with fully automated Owens machines; by approximately 1912 all hand operations ceased. Unfortunately, the finish on this jar is missing. It is therefore impossible to discern if this jar was hand, or machine made. The jar was most likely sealed on the shoulder (Toulouse 1969:31) with a screw-top zinc lid (Umberger and Umberger 1967:5). An advertisement for "Ball Mason" fruit jars printed on the inside front cover of Toulouse (1969) states:

There is a difference in the Mason Fruit Jars made by various manufacturers. "BALL MASON" Fruit Jars are the best because they are made of the best material, by skilled workmen. The Jars are carefully selected, provided with perfect caps and good Rubbers. They are thoroughly reliable and will keep fruit for years. Why take chances of your fruit spoiling by using inferior or untried brands? The "BALL MASON" has been used over 20 years, is known to be reliable, and can be obtained at a reasonable price. More of them are used than all other brands combined. This fact is evidence of their superiority. Demand "BALL MASON" Jars.

A second aqua fruit jar is a partial body and base fragment (Cat. No. 1-0-112). It bears no identifying marks.

Zinc Caps. The Mason shoulder-seal jars were topped with screw-on zinc caps. A major drawback of the zinc cap was that it imparted a metallic taste to the contents of Mason-type jars. To rectify this situation, Lewis R. Boyd developed a glass liner to fit inside of the zinc cap. He took out two patents on his invention, No. 88,439 of March 30, 1869, and No. 89,845 of May 11, 1869 (Toulouse 1969:350). Boyd says in his application, "to remedy this defect in metallic caps a glass plate or partial lining, so arranged that the said glass shall be the only portion of the cap which at any time comes in contact with the contents of the jar" (Toulouse 1969:429-430). Although Boyd's glass cap liner did much to improve the Mason shoulder-seal jar, it did not totally prevent contact between the zinc and the contents of the jar. Toulouse (1969:351) believed that

through the necessary space between the glass lining and top of the jar there was some contact with the contents, and sometimes, enough corrosion to make cap removal difficult as well as to give food a slightly metallic taste. He believed that opal glass may have been chosen for the lid liner because the opaque material would convey the idea of purity and would hide the zinc that was responsible for the compromised tastes.

One zinc cap, without a glass liner, was found at the Peña Adobe. This cap may date to a time before Boyd's glass lid liner invention. A plain opal liner was also found. This zinc cap and opal liner do not fit each other.

A second zinc cap was fitted with an opal liner. The liner is inscribed "Genuine Boyd Cap For Mason Jars." Toulouse (1969:352) mentions liners bearing the "Genuine Boyd Mason Cap." These liners were not made during Boyd's life, and date to about 1900. They were manufactured during the period when the name "Boyd" was placed on a fruit jar by the Illinois Glass Company of Alton, and its Pacific Coast subsidiary. Although the wording on the Peña Adobe liner is not identical to the one mentioned by Toulouse, I assume they are variations of the same product.

Glass Lids. Two plain glass fruit jar lids were recovered. Since there are no identifying marks to date them, one can not determine if they are from the Peña period or not. One (Cat. No. 1-0-252) is 8.1 cm in diameter and the other (Cat. No. 1-0-250) is 7.4 cm. The top of the latter lid has a "cover groove" for bail wire, indicating it had a "Lightning type" closure. The top of the other lid is flat. It may have been closed with wire clamps at both sides in a "Kivlan Victory toggle." This closure is sketched in Schroeder's (1976:8) 1000 Fruit Jars.

BOTTLES OF UNDETERMINED CONTENTS

The bottles summarized in Table 6 have no diagnostic features to determine their original contents. Some of the bottles do deserve comment.

Black Glass

The "black glass" specimen is a partial base fragment, and very thick. According to Ferraro and Ferraro (1966:96) "black" glass is actually dark olive green, intensified by thickness. They date this glass to circa 1815 to 1875 and state that it often contained porter or ale.

Table 6

GLASS BOTTLES OF UNDETERMINED CONTENTS

<u>Shape</u>	<u>Volume (Ounces)</u>	<u>Finish</u>	<u>Basemark</u>	<u>Color</u>	<u>Cat. No.</u>
Hexagonal	?	?	.	Light green	1-0-80
Octagonal	3	?		Light green	1-0-160
Octagonal(?)	?	?		Flint	1-0-7
Oval	6	?	H 3	Light blue	1-0-161
Panel					
4 sides	1	Patent/extract		Flint	1-0-203
Panel					
4 sides	1	Patent/extract		Flint	1-0-232
Panel, ball neck					
4 sides	1-1/4	Machine-made	◁ 3	Flint	1-0-218
Panel	?	?		SCA*	1-0-34
Round	?	?	Glass MFG CO.	SCA*	1-0-109
Round	?	?	✱	Blue	1-0-44
Round	?	?	Embossing: C. CO.	SCA*	1-0-1132
Round	?	?		Blue	1-0-178
Round	?	?		Black	1-0-154
Square, vial	1/4	?		Light green	1-0-249
?, ball neck	?	Patent/extract		Flint	1-0-47
?, ball neck	?	Packing		SCA*	1-0-2
?	?	Brandy		Green	1-0-1049
?	?	Double bead		Light blue	1-0-23
?	?	Double bead		Green	1-0-61
?	?	Double bead		Green	1-0-184
?	?	Double bead		Dark olive green	1-0-151
?	?	Laid-on-ring		Light green	1-0-129
?	?	Laid-on-ring		Green	1-0-294
?	?	Packing		Flint	1-0-67
?	?	Packing		Flint	1-0-108
?	?	Packing(?)		Blue	1-0-181
?	?	Prescription		SCA*	1-0-64
?	?	Prescription		Flint	1-0-16
?	?	Wide-mouth bead		Blue	1-0-79
?	?	Tapered collar		Blue	1-0-181
?	?	?		Blue	1-0-32
?	?	Bead		Green	2-2-23
?	?	?		Flint	1-0-125
?	?	?		Clear	1-0-136
?	?	?		Clear	1-0-58
?	?	?		Aqua	1-0-62

Embossings

Several fragments bear embossings that roughly date them from 1869-1900 (Kendrick 1964:51). One aqua fragment (Cat. No. 1-0-188) is embossed "New" perhaps for New York. Enough lettering remains on another aqua fragment (Cat. No. 1-0-62) to decipher the word "Boston." Three remaining clear fragments have the following embossements: "GET SO" (Cat. No. 1-0-136), "BRAN/P" (Cat. No. 1-0-58), and "P Co" (Cat. No. 1-0-125).

Finishes

Four bottles (Table 6) have crudely applied lips. Two bottles have a "laid-on-ring" finish. The remaining two bottles are green, with a "double-bead" finish. The application of molten glass near the opening of the bottle strengthened the neck. This method required reheating in order to bring about fusion between the ring and bottle (Ferraro and Ferraro 1966:12). The flared lip of the "prescription-finished" bottles may have been accomplished by holding the pontil rod with one hand and rotating a small rod about the neck opening with the other hand or by using a lipping tool (Ferraro and Ferraro 1966:11, 13). The remaining bottle finishes were probably applied with a lipping tool.

Gothic Arch Design

A gothic arch design on one fragment (Cat. No. 1-0-32) is all that remains of a "cathedral-type" bottle. Cecil Munsey (1970:152) dates these bottles from approximately 1880 to 1920. This probably was a food bottle, containing either pickles or peppersauce (Switzer 1974:51-57).

Holt

Holt Glass Works of West Berkeley, California, manufactured the oval bottle (Table 6). This bottle was blown in a basic, two-piece mould with a circular third piece which fitted into the center of the base. This circular area was indented and embossed "H"₃. This identification mark was used by Holt from 1893 to 1906. The glass plant was completely destroyed during the earthquake of April 18, 1906, and never rebuilt (Toulouse 1971:231-232).

Machine-Made Bottle

One of the panel-shaped bottles (Cat. No. 1-0-218) in the collection was machine-made (mould seams extend the full length of the bottle, through the lip) (Adams 1969:117). The fully-automatic bottle-making machine was invented by Michael J. Owens in 1900 and used by glass factories in 1903. The automatic bottle machine was used on a world-wide

scale by approximately 1920 (Kendrick 1964:5-6, 15; Tibbitts 1969:16). The diamond logo with an "I" inside (Table 6) was probably manufactured by the Illinois Glass Company of Alton. The company operated between 1873 and 1929. Toulouse (1971:264) depicts this particular basemark as having been used from 1916 to 1929. Nestora Peña left the adobe in 1918, so it is possible that this is a post-Peña discard. There is a cork stopper stuck inside this bottle.

Pontil Mark

The octagonal-shaped bottle (Fig. 24) summarized in Table 6 is believed to be the oldest in the collection. Its base has a very rough pontil mark, which dates it prior to 1860 (Abbott 1970:24). After a bottle was blown into a mould, the latter was removed and a pontil (long iron rod) was attached to the base. The bottle was then held by the pontil while the blow-pipe was detached, allowing for additional glass to be added to the neck, to form the finish. The pontil was then detached from the bottle, usually by a sharp tap on the rod, and a blemish was left on the base. This is a pontil mark. There are at least four empontilling techniques. The "blow-pipe pontil" technique was used on this bottle. In this procedure, the blow-pipe with glass on its tip is attached to the base. This technique leaves a distinct ring-shaped pontil mark (Jones 1971:62, 68-71).



Fig. 24. Octagonal shaped
bottle that has
a pontil mark.
Actual size.

The other bottles in the collection do not exhibit pontil marks. These bottles were held in a snap-case while they were finished. The snap-case was more efficient than the pontil because it gripped the sides of the bottle, thus leaving no scars. The snap-case was developed between 1850 and 1860 (Kendrick 1964:21, 23). By the mid-1860s most bottle makers utilized the snap-case technique (Munsey 1970:48).

GLASS STOPPERS

One complete ground-stem stopper (Fig. 25) is made of flint glass. The shaft is tapered and ground to fit exactly with the ground opening of a bottle (Herskovitz 1978:24). The base of this stopper (Cat. No. 1-0-259) has a small opening which penetrates the stem about 0.8 cm. This stopper may have been fitted to a perfume bottle which had some sort of applicator attached to the stem hole. This round-topped stem measures 4.4 cm long by 1.9 cm maximum diameter.



Fig. 25. Ground stem stopper.
Actual size.

A second stopper (Cat. No. 1-0-145) is not complete. The green stem is tapered and smooth. This one may have had cork around its circumference. Putnam (1965:81, 82) illustrated "peg stoppers" which originally were covered with cork tubing to fit the bottle opening tightly. The stopper in the collection is not a "peg stopper," as it has a tapered stem, but it may, nonetheless, have been fitted with cork, as it is not ground. Its maximum shaft diameter is 1.3 cm.

PRESSED GLASS

The manufacture of pressed glass began in the 1820s (Schwartz 1969:110), but such glass was not produced in large quantities until the late 1840s (Lee 1964:vii, 5). Pressed glass entails the use of a mould in which the gath-

ered glass was pressed with a plunger. The art work was in the design of the mould. Pressed glass designs were often derived from cut-glass models, and decorative porcelains in vogue at the time. Pressed glass was a generally affordable "luxury" (Schwartz 1969:109, 113, 121, 123).

BOWL

A flint-colored "footed" bowl (Fig. 26) has a red floral pattern around its rim. It is 10.2 cm high, 10.8 cm at mouth, and 8.9 cm in base diameter (Cat. No. 1-0-13).

GLASSES

Tumblers

Two flint-colored "bar tumblers" have been identified from Ruth Lee's (1946:24) Early American Pressed Glass. One (Fig. 27) is an eight-fluted styled tumbler (Cat. No. 1-0-261) with the following dimensions: base diameter 5.7 cm, basal indentation 1.3 cm, mouth diameter 6.35 cm, height 8.9 cm. A second tumbler (Cat. No. 1-0-59, 1-0-85) is very similar to the "Sham" fluted tumbler, illustrated in Lee (1946:24).



Fig. 26. Pressed glass footed bowl with red floral pattern around its rim. Actual size.



Fig. 27. Pressed glass tumbler. Actual size.

Goblet

Part of what is believed to have been a stemmed, pressed, glass goblet has been identified. It (Cat. No. 1-0-57) is sun-colored amethyst with two geometric bands circling the body of the goblet.

UNKNOWN

Four flint-colored pressed glass base fragments from different objects were recovered. One fragment (Cat. No. 1-0-84) has radiating lines extending from the center of the base. This may have been from a vase or glass. Another fragment probably belonged to a shallow bowl (Cat. No. 1-0-116) having a raised-circle design. The remaining two base fragments (Cat. Nos. 1-0-68, 2-2-13) also may have belonged to bowls. A flint-colored rim fragment (Cat. No. 1-0-24) may be from a plate.

Two stem fragments were recovered. One is sun-colored amethyst (Cat. No. 1-0-22); the other is a yellow, six-sided stem fragment (Cat. No. 1-0-100).

A flint-glass handle (Cat. No. 1-0-18) cannot be assigned to any particular object.

Seven non-diagnostic pressed glass fragments are not identifiable to any specific object. One piece is sun-

colored amethyst (Cat. No. 1-0-17). The top of a flint-colored rim fragment (Cat. No. 1-0-81) has triangles pressed along the edge. The remaining fragments (Cat. Nos. 1-0-131, 1-0-110, 1-0-75, 1-0-9, 1-0-135) are also "flint" in color.

MISCELLANEOUS GLASS

BEADS

Of the three glass beads found near the Peña Adobe, two are round. One of these is translucent blue (Cat. No. 1-0-1871); the other was found between the wooden floor and earth floor of the adobe (7N 2E) and is amber swirl-glass (Cat. No. N). Their dimensions are 0.6 by 0.6 cm and 0.8 by 0.85 cm respectively. The third bead (Cat. No. 1-0-1861) is opaque black glass with a cylindrical shape. It measures 1.9 by 0.6 cm, is two-holed, and covered with facets.

BUTTONS

Sew-Throughs

A majority of the glass buttons recovered are utilitarian. Fifty-three are plain, four-hole, sew-through buttons of opal or white milk glass (Fig. 28). All have recessed central areas where the holes are formed. They range in size from 0.9 cm to 1.7 cm (refer to Appendix A for

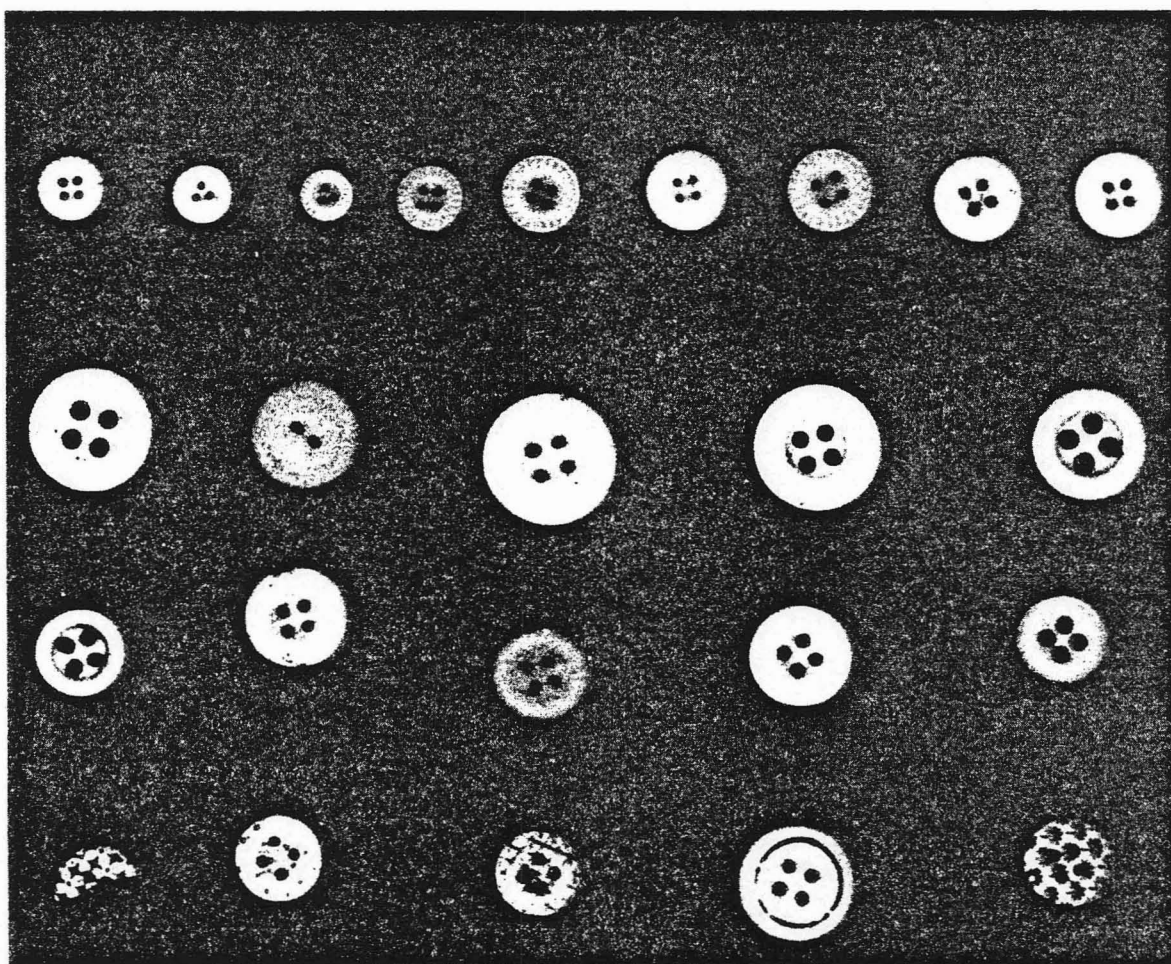


Fig. 28. Sew-through glass buttons. Upper row: pie-crust and hobnail small china sew-throughs. Second row: plain sew-throughs. Third row: four-hole sew-throughs. Lower row: calico buttons (except second from right). All actual size.

exact measurements). One of these buttons (Cat. No. 1-0-1618) has brown thread still in place. Also found were two two-hole, and one three-hole sew-through opal glass buttons (Fig. 28). Three brown, two orange, and two pink four-hole sew-throughs were recovered. Eight buttons have a white recessed central area with a contrasting color border. The colors are: green, pink, blue, brown, and black. All are four-hole sew-throughs except one, which is a three-hole. One two-hole sew-through with a white center is enhanced by an orange border (Cat. No. 1-0-1785). One opal glass four-hole button (Cat. No. 1-0-1727) is decorated with two green bands.

Salted Sew-Throughs. A few examples of "salted buttons" are found in the collection. A salted effect is achieved by applying crushed or powdered glass to the surface of buttons (Brown 1968:261). Fourteen four-hole, and three two-hole "salted" sew-throughs are in the collection. One of these two-holes (Cat. No. 1-0-1712) is a pants button.

Small China Sew-Throughs. Small chinas are a type of button made from dry pressed clay (Peacock 1972:98).

Calicos: Calicos are china buttons with decorative patterns similar to, and sometimes identical with, those on cotton calico fabrics. These buttons became popular in the

1840s and were common as late as 1890. They were used primarily on women's and children's dresses and pinafores (Brown 1968:25). Four calico buttons (Fig. 28) were recovered. Their monochrome designs are transferred onto a white-body button. One of these buttons has a green geometric dot-and-line pattern (Cat. No. 1-0-1736). The remaining calicos are brown, one bearing a floral design (Cat. No. 1-0-1735), another a star pattern (Cat. No. 1-0-1738), the last, small dots (Cat. No. 1-0-1737). All are four-hole sew-throughs with a recessed central area. Calicos were manufactured in France, England, and the United States (Luscomb 1967:31).

Hobnail: One opal four-hole sew-through "hobnail" button (Fig. 28) was found. Hobnail is a button with a circle of raised dots around the edge (Peacock 1972:102).

Pie-Crust: "Pie-crust" is a term used by collectors to describe buttons that have a tyre or pie-crust edging (Peacock 1972:102). In the collection there are five clear and one white glass, pie-crust buttons (Fig. 28). One is a "three-hole" (Cat. No. 1-0-1734); the remaining are four-hole sew-throughs.

Black Glass

Black pressed-glass buttons were very fashionable from 1870 to 1910 (Peacock 1972:49). The most ornate of the black glass buttons shows an anchor and its border, in relief, on a stippled background (Cat. No. 1-0-1688). Its slightly concave back has a metal loop shank. Black glass buttons (Fig. 29) are represented in a variety of styles, such as square, round, convex, and faceted:

<u>Cat. No.</u>	<u>Shape</u>	<u>Method of Attachment</u>
1-0-1783	Square, faceted on edge	Metal shank
1-0-1796	Round, faceted on edge	Metal shank(?)
1-0-1776	Round, convex, faceted	Brass shank plate
1-0-1782	Round, convex	Metal shank
1-0-1789	Round	Omega shank
1-0-1777	Round, convex, faceted	Grooved self-shank
1-0-1795	Glass-ball*	Metal loop shank

Carnival Glass. Carnival glass is the label for luster-trimmed black glass buttons made in the nineteenth century (Luscomb 1967:35). One of the carnival glass buttons is a two-hole sew-through (Cat. No. 1-0-1799). The other (Fig. 29) is a "pinwheel"; its glass whirls in one direction (Brown 1968:260). The back is missing on this button (Cat. No. 1-0-1793).

*This button has a moulded floral design.

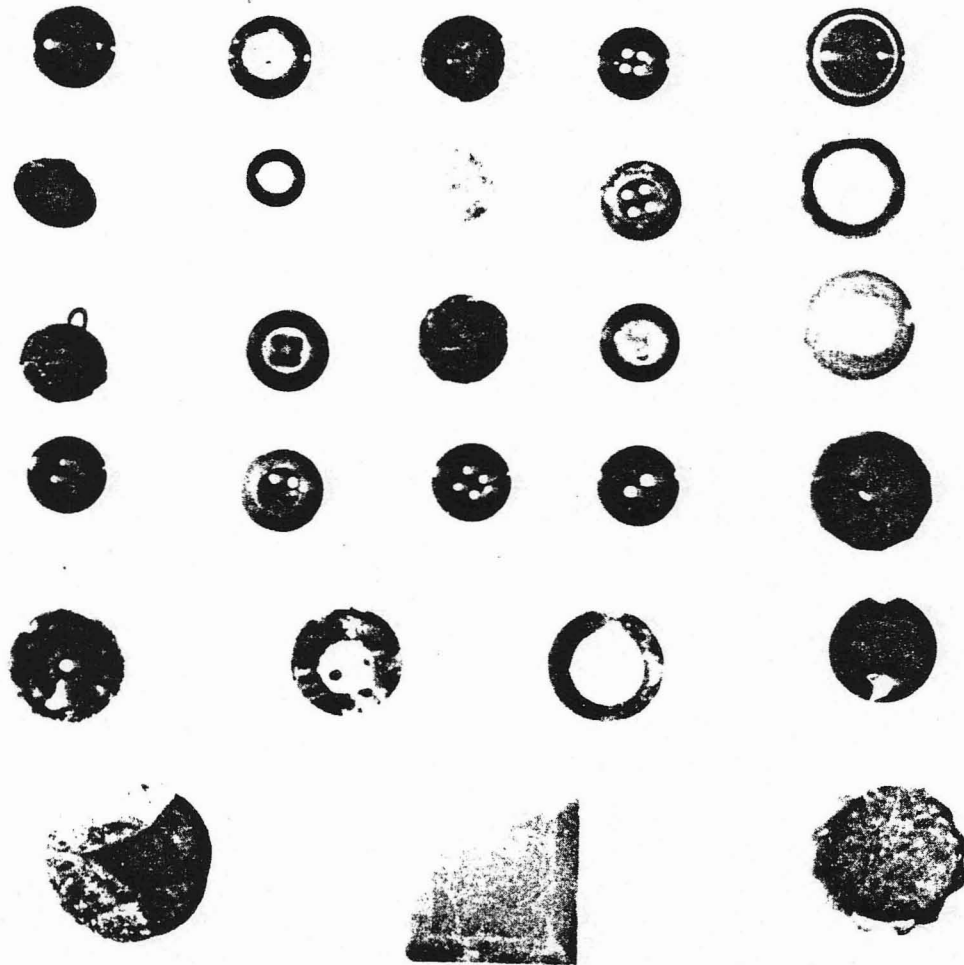


Fig. 29. Glass buttons. Upper row: convex button; four-hole sew-throughs; convex button. Second row: black glass button; three-hole, four-hole, and two-hole sew-throughs. Third row: black glass ball with moulded floral design; four-hole sew-through; "pinwheel"; four-hole sew-throughs. Fourth row: four-hole and two-hole sew-throughs; whistle button with gold stone inclusions. Fifth row: whistle button, four-hole sew-throughs; faceted button. Lower row: faceted buttons. All actual size.

Miscellaneous

Mixed Composition. A pink convex glass button (Fig. 29) has a contrasting white band. It (Cat. No. 1-0-1778) was attached with a metal shank.

Whistle Button. Two glass "whistle" buttons (Fig. 29), (one hole on top and two in the back) (Luscomb 1967:221-222), were recovered. The back of the purple tinted one is missing (Cat. No. 1-0-1797). Gold stone inclusions in black glass highlight the second button (Cat. No. 1-0-1798). Its rim is faceted.

Cameo. An opal glass "cameo" (Fig. 30) may have been part of a three-piece button. This cameo (Cat. No. 1-0-1726) appears to be a Greek or Roman Goddess.

CHIMNEYS

Rim fragments from nine lamp chimneys were recovered. The rims on these fragments are scalloped (Fig. 31). Tops of chimneys were patterned this way with the use of a "crimping" device (Scoville 1948:38, 47, 79). Before 1895, chimneys for kerosene lamps were blown by skilled laborers into paste moulds and shaped with simple hand tools (Scoville 1948:78-79, 175). Between 1894 and 1898, M. J. Owens and the Toledo Glass Company developed the first semi-

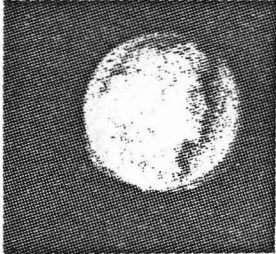


Fig. 30.. Opal glass "cameo" possibly from a button. Actual size.

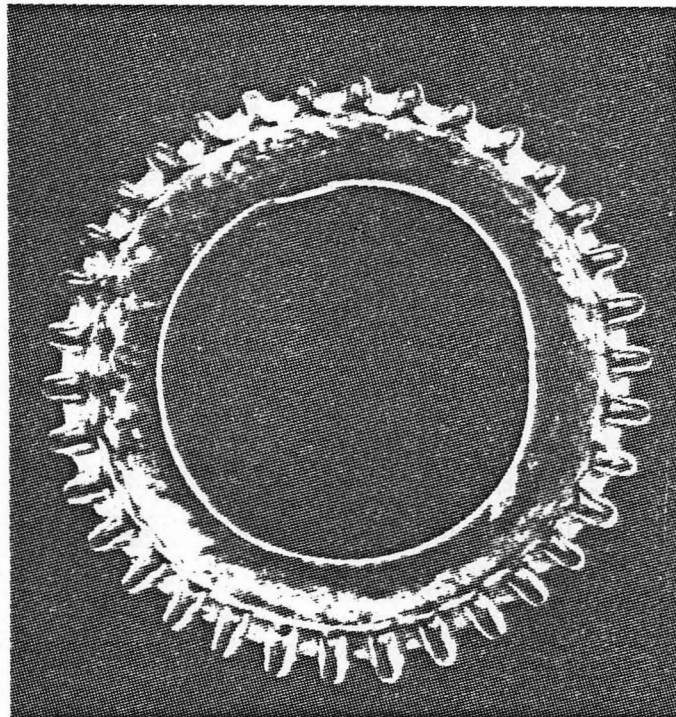


Fig. 31. Glass chimney fragment. Actual size.

automatic machine to form lamp chimneys in paste moulds (Scoville 1948:194). Peak production of lamp chimneys occurred between 1890 and 1900, with a dozen chimneys costing as little as 30 cents, wholesale. By 1920, approximately half of the chimneys in the United States were produced by machines.

CUFF-LINK

One off-white cuff-link (Cat. No. 1-0-1489) has a length of 1.1 cm.

HAT PIN

The glass top of a hat pin (Cat. No. 1-0-1725) was recovered. It is coated with a "pearl" emulsion. Its dimensions are: 2.0 by 0.8 cm.

INSULATORS

Glass insulators were invented by Ezra Cornell in 1844-1845 for the purpose of insulating telegraph wires to keep current leakage to a minimum. Insulators were used on telegraph, telephone, and electrical lines (Tibbitts 1967a:10-11).

Three discrete insulators are probably represented by four glass fragments from the collection. These insulators were most likely used on telephone lines. Alexander Graham Bell invented the telephone in 1876. One year later, San Francisco had a small telephone switchboard installed. In 1880 two companies, the American Speaking Telephone Company of San Francisco, and the National Bell Telephone Company, consolidated under the name Pacific Bell Telephone Company (Tibbitts 1967a:12-13).

Brookfield

One of the insulators (Cat. No. 1-0-119) is embossed "BROOKFIELD" on the lower portion of the skirt. The Brookfield Glass Company of New York began operations in 1865 and ceased production in 1920 (Tibbitts 1967a:14, 43). Tibbitts (1967a:14, 43, 51; 1968:50, 53) discussed embossing variations of the Brookfield type. On later insulators Brookfield was embossed on the skirt. Unfortunately, only a portion of "Brookfield" is embossed on the fragment, making the style impossible to discern.

The Brookfields bought Louis A. Cauvet's (1865) "threaded pin hole" patent. The patent was for glass insulators with an internal screw-thread, which enabled insulators to be securely "screwed" onto hardwood pins. As a

result of this useful patent, the Brookfields became very important insulator producers (Tibbitts 1967a:14, 44). On September 13, 1912, Nestora Peña Rivera signed an indenture with Pacific Gas and Electric Company granting them an easement for two electrical lines² (Anonymous 1912).

Unknown

One (Cat. No. 1-0-146) of the remaining two insulators is aqua in color; the other, (Cat. Nos. 1-0-132, 1-0-1047) is light blue. They lack markings, and they are too fragmentary to provide a shape analysis. Insulators were pressed in a mould (Tibbitts 1967a:10).

MARBLES

At least fifty-four (probably more) marbles were recovered during the 1962-1965 restoration project (Merle Curtice 1962). Two marbles, a green and white, and an orange and yellow, were recovered between the wooden floor and earth floor of the Peña Adobe addition in archaeological unit 6E 10N. Two marbles were found between the floors in the adobe portion of the home in units 4N 3E, and 6N 6E (Peña Adobe artifact cards #6, #9, #17). They are 1.7 to 2.0 cm in diameters. None of these marbles remain in the collection. My 1982 fieldwork unearthed three glass mar-

bles. Two of these "glassies" are of solid colors; one is reddish-brown (Cat. No. 2-2-78), and the other a light blue (Cat. No. 2-2-80). The third marble (Cat. No. 2-2-76) is of light green and white "common swirled glass."

German corporations were the only major manufacturers of stone and glass marbles until about 1900, when the latter came under production in the United States. The first American company to make glass marbles in quantity (1897) was the Navarre Glass Marble and Specialty Company of Navarre, Ohio (Ferretti 1973:32).

SHOE BUTTON

The glass top portion of a shoe button (Cat. No. 1-0-1868) was catalogued. A piece of shank metal remains embedded in the white opaque glass.

VESSEL

Fragments of "black glass" (Cat. Nos. 1-0-174, 1-0-293, 1-0-296) that appear deep purple, when held to light, are believed to be from one vessel having a fairly large base, greater than three inches in diameter. A body fragment is ribbed. These fragments may represent a vase.

WINDOW GLASS

Numerous small fragments (Cat. Nos. 2-2-2, 2-1-23, 2-2-20, 2-2-66, 2-2-102, 2-2-103, 2-1-141) of window glass were recovered. Window glass is a relatively crude silicate of lime and soda (White 1978:66). From 1850 to 1900, window glass was made by a process which produced "cylinder, or sheet glass." Glass was collected on the end of a blow-pipe, rolled on a marble or wooden block until it formed a cohesive mass, and then blown into a large cylinder. The glass cylinder was slit with a knife, reheated in the flattening oven, and gradually unfolded and smoothed with a small block of charred wood attached to the end of an iron rod. The flattened glass was then cut into window-panes (Scoville 1948:14-16).

MISCELLANEOUS GLASS

A round piece of 0.5 by 1.2 cm "swirl back" milk glass (Cat. No. 1-0-1130) cannot be positively identified. It may be from the end of a hat pin. A smoothed, circular, partial ring of green opaque glass (Cat. No. 1-0-1454) is also non-diagnostic. Several possibilities exist for the function of a small piece of white glass (Cat. No. 2-2-130). It may have been a bead, top of a hat pin, or pin shank shoe button. Its dimensions are: 0.4 by 0.7 cm.

NOTES

1. After World War I, U.S. glass houses could not get manganese from Austria, their main source. Alternative chemicals were then used as bleaching agents.

2. Easement in SE 1/4 of Section 29 T.7, R.1W, MDM.

Chapter 4

ANALYSIS OF CERAMIC ARTIFACTS

FROM THE PEÑA ADOBE

As in Fort Bowie Material Culture (Herskovitz 1978), the Peña Adobe ceramics are organized under broad categories which depict their general purpose or function. These broad categories are: Kitchen and Table Wares, Bottles, Jars and Crocks, Household and Personal Items, Furnishings, Stoppers, Toys, and Games.

Ketchum (1971:119-123) discussed three basic types of ware which are represented in the Peña Adobe artifacts: whiteware, stoneware, and porcelain. Whiteware is produced from refined, highly plastic, "white-burning clay," and may be thought of as existing in a continuum of refinement, from dark and relatively coarse cream-colored ware to highly developed chalk-hued white opaque earthenware. Earthenware is a softer pottery than stoneware. It is fired at a relatively low temperature, at least twice. Being porous, it requires a glaze. All types of whiteware were slip-cast rather than thrown on a wheel (Godden 1966:216; Ray 1974:5). Their body material begins in a water suspension having the consistency of heavy cream, which is then poured into moulds which absorb the water, leaving the clay particles as a

solid deposit conforming to the mould (Ormsbee 1959:4). Ironstone china is the most common whiteware in the Peña Adobe assemblage. Ironstone china was patented in July, 1813, by Charles James Mason of Lane Delf, Staffordshire, England (Hughes 1965:57). Other names for ironstone china are: stone china, granite ware, semi-porcelain, and flint china. Ironstone was manufactured in England and in the United States. It is a highly vitrified, non-porous, opaque earthenware of great hardness. Although extremely durable, the heaviness of ironstone led to its decline in popularity.

William Ketchum (1971:50) defined stoneware as a pottery made from a white, fine-grained clay which hardens around 2200 degrees Fahrenheit. Stoneware is extremely hard, non-porous, and semi-vitreous.

Porcelain, or "china," is the third type of ware represented. Ketchum (1971:145-146) described porcelain as a hard, vitreous, non-absorbent, and translucent ceramic fired at an extremely high temperature. Porcelain differs from other ceramics in being composed not of a clay or several clays, but of an "artificial" mixture, generally containing kaolin, ground flint, and feldspar. Godden (1966:xvii) stated that the distinguishing feature of porcelain is that it is translucent, compared to earthenware, which is opaque.

Porcelain and earthenware objects are normally glazed. The once-baked pottery, called "biscuit," is dipped into a liquid glaze, a mixture of silicates and water, and then fired a second time (Ray 1974:5).

Ware typologies, whenever possible, were derived from hallmarks, such as "IRONSTONE," a common basemark.

KITCHEN AND TABLE WARES

Kitchen and tableware ceramics fall into two basic sub-categories. They are: ceramics with hallmarks (in other words, those pieces from which the manufacturer can be identified), and ceramics with identifiable shapes or functions. I divided the kitchen and table wares in this manner, rather than strictly organizing materials by function, because some of the wares belong to a set. One particular set in the collection consists of six bowls, and a plate. If this set were not listed by its manufacturer's mark, the bowls would have been discussed separately from the plate. Except where stated, the following artifacts are undecorated whiteware with a white tint glaze.

MAKERS' MARKS

All of the English ceramics in this section (Table 7) were produced in the district known as the "Staffordshire

Table 7

KITCHEN AND TABLE WARE CERAMICS BEARING HALLMARKS

<u>Manufacturer</u>	<u>Shape</u>	<u>Color</u>	<u>Ware</u>	<u>Cat. No.</u>
T. & R. Boote LTD	Platter	White	Semi-porcelain	1-0-320
T. & R. Boote LTD	?	White	Ironstone	1-0-334
E. & C. Challinor	?	White	Earthenware	1-0-980
Elsmore & Forster	Platter(?)	White	Earthenware	1-0-347
Griffen, Smith & Hill	Plate	Yellow, green & pink	Majolica	1-0-451
				1-0-622
				1-0-623
Harker Pottery Co.	?	White	Semi-porcelain	1-0-983
Johnson	?	White	Earthenware	1-0-1025
Johnson	?	White	?	1-0-660
Johnson	?	White	?	1-0-972
Knowles, Taylor and Knowles	?	White	Ironstone china	1-0-987
Alfred Meakin LTD	?	White	Ironstone	1-0-965
Alfred Meakin LTD(?)	Saucer(?)	White	Ironstone	1-0-969
J. & G. Meakin	?	White	Earthenware	1-0-964
J. & G. Meakin	?	White	Earthenware	1-0-966
J. & G. Meakin(?)	Saucer(?)	White	Whiteware	1-0-661
J. & G. Meakin or Charles Meakin	?	White	Earthenware	1-0-973
Meakin	Saucer(?)	White	Ironstone	1-0-968
Pinder, Bourne & Hope	?	White	White granite	1-0-989
Pinder, Bourne & Co.	?	White	Stone china	1-0-978
Ridgways	Bowl	Blue on white	Semi-porcelain	1-0-1133
Ridgways	Bowl	Blue on white	Semi-porcelain	1-0-1167
Ridgways	Bowl	Blue on white	Semi-porcelain	1-0-1137
Ridgways	Bowl	Blue on white	Semi-porcelain	1-0-1135
Ridgways	Bowl	Blue on white	Semi-porcelain	1-0-1376
Ridgways	Bowl	Blue on white	Semi-porcelain	1-0-1136
Ridgways	Plate	Blue on white	Semi-porcelain	1-0-1134
John Wedge Wood	Bowl	White	Ironstone china	1-0-329
?	Platter	White	Ironstone	1-0-325

Potteries." The main pottery towns in Staffordshire are Burslem, Cobridge, Etruria, Fenton, Hanley, Lane End, Longton, Stoke, and Tunstall (Godden 1971:5).

T. & R. Boote LTD

T. & R. Boote LTD. of Burslem, Staffordshire, began operations in 1842. The firm built N. B. Waterloo Pottery, before it closed, in 1906. The Boote mark (Fig. 32), appearing on two Peña Adobe pieces, is illustrated in Encyclopaedia of British Pottery and Porcelain Marks (Godden 1964:84). Godden dated this mark from 1890 to 1906. These two brown transfer-printed marks include the word "England." Country of origin was added to marks after 1891 to comply with the American McKinley Tariff Act (Godden 1964:11), although some manufacturers used "England" before 1891 (Herskovitz 1978:97). The mark on the platter is also printed "semi-porcelain." The Royal Arms were often included with Boote's Victorian marks (Godden 1964:84; Kovel and Kovel 1953:208). Boote produced decorative classes of goods, which were discontinued around 1865. At this time, the firm confined itself to the production of white granite ware for the American market.

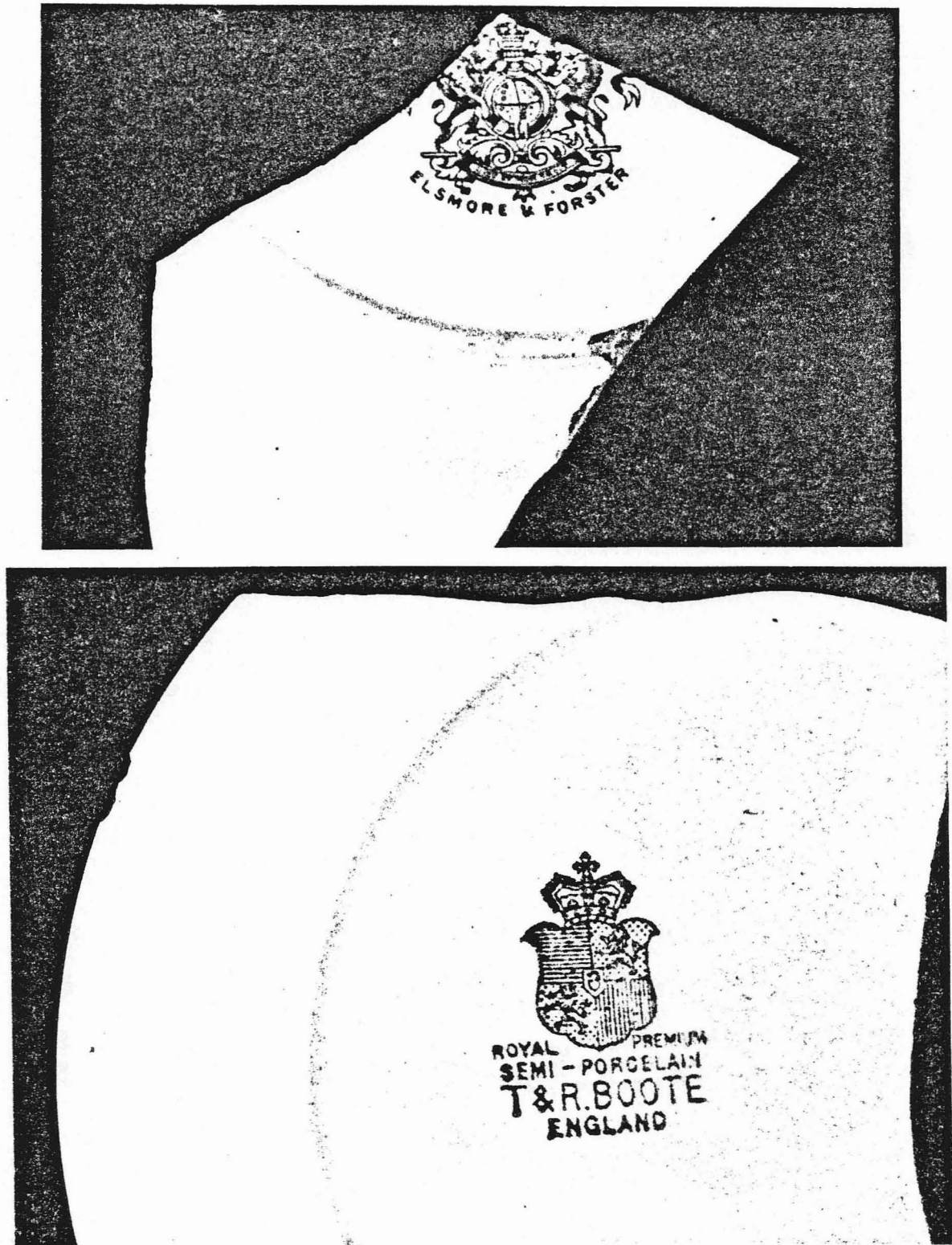


Fig. 32 Ceramic hallmarks. Upper: T. & R. Boote. Lower: Elsmore & Forster. Actual size.

E. & C. Challinor

E. & C. Challinor manufactured earthenwares and ironstones at Fenton Pottery in Fenton, Staffordshire. The firm operated under this title from 1862 to 1891 (Godden 1964:137-138). One fragment (Fig. 33) bears the Royal Arms printed mark of this company, which manufactured wares for the United States and other countries (Godden 1971:49).

Elsmore & Forster

Elsmore & Forster is another of the Staffordshire potteries represented in the collection. They were located at Clayhills Pottery in Tunstall. A platter (Fig. 32) manufactured by this company dates somewhere between 1853 and 1871, the period Elsmore & Forster were in business. In 1872 they were succeeded by Elsmore (Thomas) & Son which continued until 1887 (Godden 1964:235-236). The mark is black. The inside platter rim appears to have a white-moulded "wheat" pattern.

J. Goodwin

A black-printed hallmark (Cat. No. 1-0-990) in its complete form displayed a "liver" bird above a garter that contained the words "J. GOODWIN" surrounding "PORCELAINE A LA FRANCAIS" above "Seacombe Pottery" in italics, and

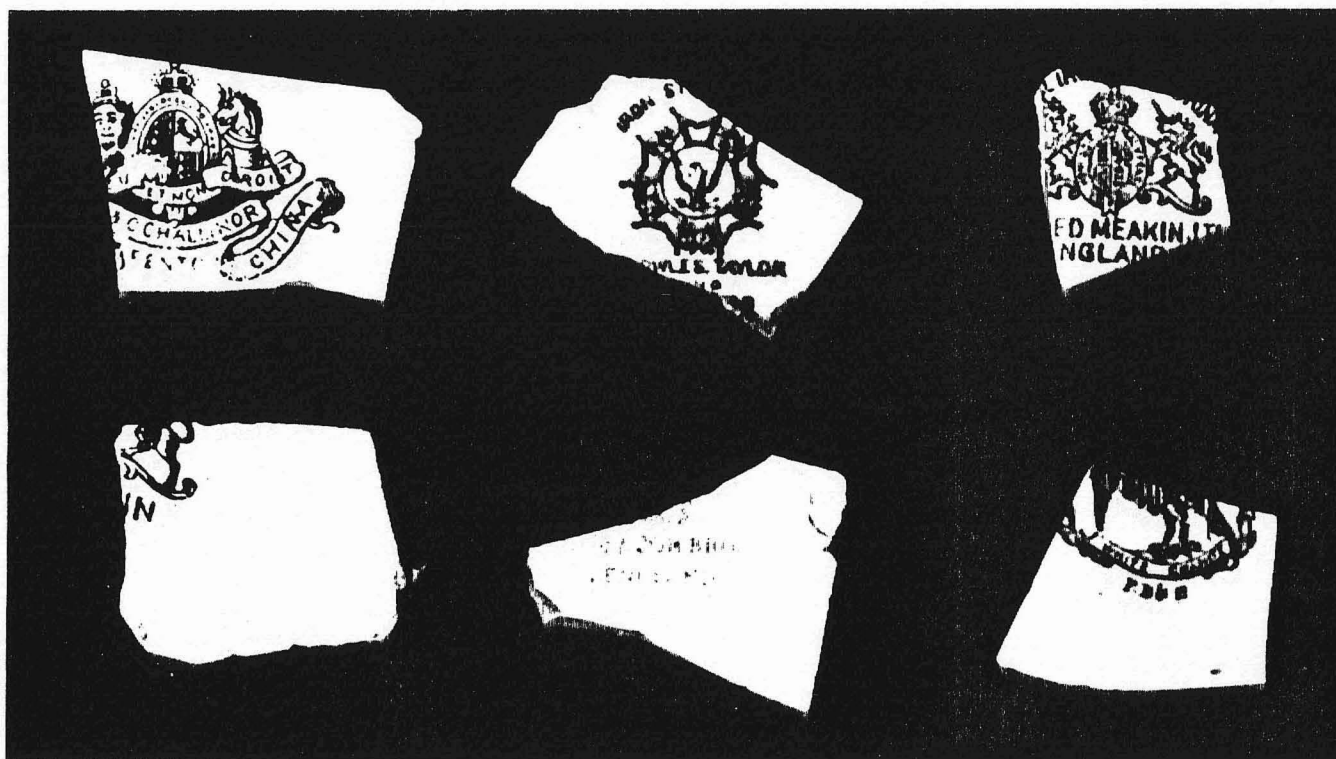


Fig. 33. Ceramic hallmarks. Upper row: E. & C. Challinor; Knowles Taylor and Knowles; Alfred Meakin Ltd. Lower row: Meakin; Johnson Brothers; Pinder, Bourne & Hope. All actual size.

"LIVERPOOL." Goodwin established a pottery in Seacombe, Liverpool in June of 1852. This maker's mark dates no later than 1871 (Praetzellis, Rivers, and Schulz 1983:39, 97).

Griffen, Smith & Hill

One rim fragment (Fig. 63) and two body fragments remain of a plate that was originally impressed with the monogram of Griffen, Smith & Hill. This firm operated between 1879 and 1890 in Phoenixville, Pennsylvania. Encircling the monogram was "ETRUSCAN" and "MAJOLICA" (Thorn 1947:129, #11). The plate had a yellow basket weave pattern with pink and green colors in the center. Majolica is the name given to tin-glazed earthenwares, that have a fine yellow or pink body glazed in one or more often inharmonious artificial pastel colors (Ketchum 1971:120). The best known American majolica ware was made by Griffen, Smith & Hill. In 1880, their majolica was given as premiums by the Atlantic and Pacific Tea Company (Warman 1980:407).

Harker Pottery Co.

One fragment (Fig. 34) bears a green printed mark of the Harker Pottery Company, located in East Liverpool, Ohio. This American company succeeded George S. Harker & Co. (1851-1890) in 1890 (Thorn 1947:130).

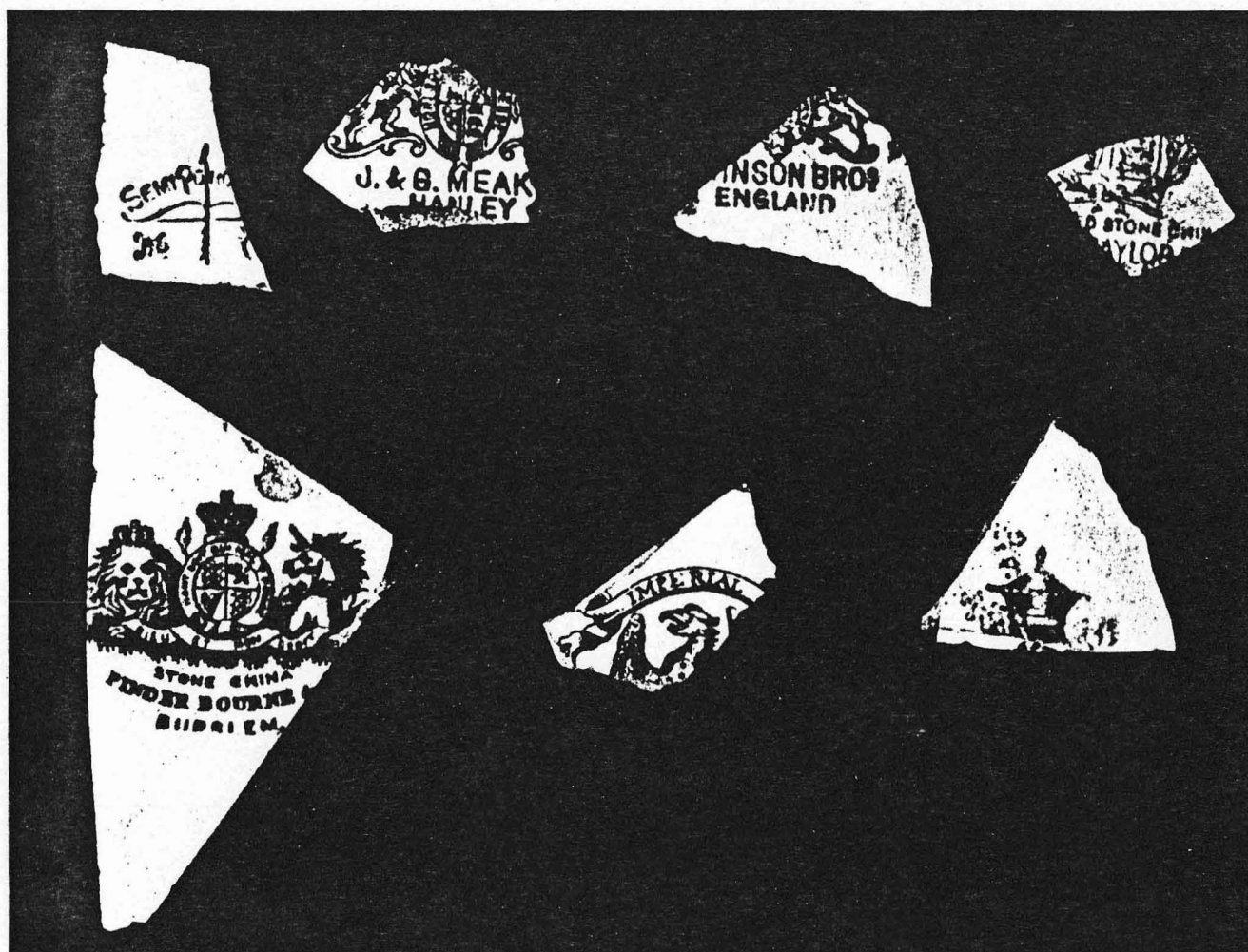


Fig. 34. Ceramic hallmarks. Upper row: Harker Pottery Company; J. & G. Meakin; Johnson Brothers; Mellor, Taylor & Co. Lower row: Pinder, Bourne & Co.; unidentified mark; unidentified mark. All actual size.

Johnson Brothers LTD

One fragment (Fig. 33) has the printed mark of Johnson Brothers Limited, which incorporated it's Hanley Pottery in 1883. They also produced wares in Tunstall, circa 1899-1913. The black printed mark on this fragment (Cat. No. 1-0-972) was used by Johnson Brothers from 1883 to 1913. Two fragments (Fig. 34) have a later Johnson Brothers mark. The printed marks are green, and date circa 1913 onwards (Godden 1964:355-356; Cushion and Honey 1980:137).

Knowles, Taylor and Knowles

One sherd (Fig. 33) bears the printed mark of Knowles, Taylor, and Knowles, a United States company (Thorn 1947:132-133, #3). Isaac Knowles began to make pottery in 1854 as a partner of Issac Harvey in East Liverpool, Ohio. His son-in-law, John W. Taylor, and his son, Homer S. Knowles, joined the firm in 1870, and it became known as Knowles, Taylor, and Knowles. At this time they began to mass-produce ironstone and other whitewares. The sherd dates no earlier than 1870, and probably no later than 1900 (Ketchum 1971:107, 135, 137).

Alfred Meakin LTD

One fragment (Fig. 33) bears the hallmark of Alfred Meakin LTD. Alfred Meakin went into business in 1875; "Limited" was added in 1897 and dropped around 1930 (Cushion and Honey 1980:165). "Meakin Limited" products came from the Royal Albert Works, Victoria and Highgate Potteries, located in Tunstall, Staffordshire. Godden (1964:425) gave a date of circa 1897 for this mark. "ROYAL IRONSTONE CHINA" is written on this black printed mark (Cat. No. 1-0-965) above the coat of arms. A second sherd is tentatively classified as a product of Alfred Meakin LTD. If it is a product of Alfred Meakin, it is later than 1897, as indicated by the addition of "Limited."

J. & G. Meakin

In 1845, James Meakin began to produce ceramics; eventually he was succeeded by his sons, James Junior, and George. Two fragments (Fig. 34) have the mark of J. & G. Meakin. J. & G. Meakin (LTD) produced its wares at the Eagle Pottery and Eastwood Works in Hanley, Staffordshire. They began production in 1851, specializing in the manufacture of ironstone tablewares, and many were exported to the United States. The maker's mark on these two fragments is the Royal Arms, which was used by Meakin circa 1890 (Godden

1964:427; Ormsbee 1959:81). A third sherd (Cat. No. 1-0-661) seems likely to be a product of J. & G. Meakin. All that remains of the green printed mark is "SOL" and "391413." The "SOL" trademark was registered in 1912 by J. & G. Meakin, and it continued in use until after post-World War II (Godden 1964:427).

Meakin

A portion of a printed maker's mark is visible on one fragment (Cat. No. 1-0-973). Enough lettering remains to make out "MEAKIN" and "HANLEY" directly below. Two possible manufacturers of this piece are Charles Meakin, located at the Eastwood Pottery, or J. & G. Meakin, mentioned above. Both companies were located in Hanley, Staffordshire. If the fragment were manufactured by Charles Meakin, it has a date of circa 1883 to 1889. If it bears the mark of J. & G. Meakin it dates before 1890, as it lacks "England" (Godden 1964:426-427).

One fragment manufactured by a Meakin cannot be positively identified. Godden (1964:425-427) listed several Meakins who manufactured pottery in the late nineteenth century. Some descriptive information can be given about this fragment: the mark is of the Royal Arms, and the presence of "England" probably gives it a post-1891 date.

Mellor, Taylor & Co.

Enough lettering remains on one black printed mark (Fig. 34) ornamented with a wreath around a shield to decipher "Taylor" (Cat. No. 1-0-985). This appears to be the mark of Mellor, Taylor & Co. "Ironed Stone China" is written below the shield. This company operated in Burslem, Staffordshire from 1880 to 1904 (Praetzellis, Rivers and Schulz 1983:59, 102).

Pinder, Bourne & Hope

One fragment (Fig. 33) is marked "White Granite," and "P. B. & H." Pinder, Bourne & Hope operated a factory at Fountain Place (circa 1851-1860) and at Nile Street (circa 1860-1862) in Burslem, Staffordshire (Godden 1964:495). Another fragment (Fig. 34) incorporates the name Pinder, Bourne & Co. which was also located on Nile Street. The company existed from 1862 to 1878 at which time it was purchased by Doulton & Co. Doulton retained the title of Pinder, Bourne & Co. until 1882 when it became "Doulton & Co. Ltd." (Godden 1964:495; Godden 1968:104).

Ridgways

Pieces of at least six bowls (Fig. 35) and one plate (Fig. 36) bearing a blue grape leaf on a white pattern



Fig. 35. Ceramic bowl manufactured by Ridgways of Staffordshire, England. Pattern is Lonsdale. Actual diameter 23.7 cm.

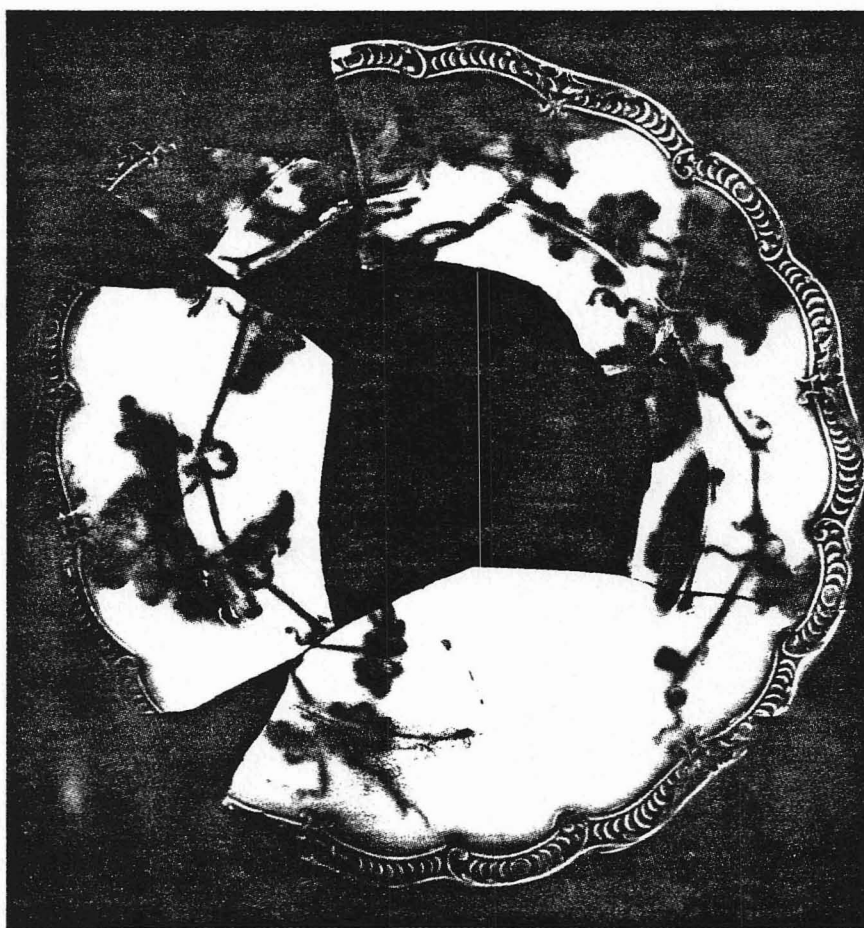


Fig. 36. Ceramic plate manufactured by Ridgways of Staffordshire, England. Pattern is Lonsdale. Actual diameter 25.5 cm.

called "LONSDALE" were recovered. This pattern was produced by Ridgways at Bedford Works, in Shelton, and in Hanley, Staffordshire. Ridgway has been a leading name on Staffordshire ceramics since the early nineteenth century. Members of the Ridgway family operated several potteries in Staffordshire, from 1755 until sometime during World War I, when the family's ceramic factories and use of the Ridgway name were acquired by a stock company of which Ridgway Potteries, Limited, is the successor (Ormsbee 1959:99-105). The bow and quiver emblem (Fig. 37) was registered in 1880 as a trademark by Ridgways. The mark on these bowls and plate is a version of the bow and quiver used by Ridgways circa 1912 (Godden 1964:539).

John Wedge Wood

A small bowl with the hallmark "IRONSTONE/J. WEDGWOOD/CHINA/7" is believed to have been manufactured by John Wedge Wood between 1841 and 1860. His Staffordshire wares were produced in Burslem from 1841 to 1844 and in Tunstall from 1845 to 1860. Several different English marks occur with the name "J. WEDGWOOD." This has often been mistaken for a mark of the Josiah Wedgwood firm, which did not use the initial "J" on its marks (Godden 1964:656, 687-688).



Fig. 37. Ridgways circa 1912 bow and quiver hallmark. Pattern is Lonsdale. Three times larger than actual size.

Miscellaneous

Remains of fourteen black-printed marks are too fragmentary to make a positive identification as to manufacturer. Nine (Cat. Nos. 1-0-970, 1-0-971, 1-0-975, 1-0-976, 1-0-979, 1-0-981, 1-0-984, 1-0-988, 1-0-1001) bear the Royal Arms monogram and are products of Great Britain, or the United States. One of these fragments says "WARRANTED" "ROYAL IRONSTONE," and seems to have been a saucer. On the base of a very thick dish (Cat. No. 1-0-331) are the remains of a maker's mark in the form of a crown. Above the crown is the word "ROYAL." According to Godden (1968:10), "Royal"

in a firm's title or trade name suggests a date from the second half of the nineteenth century and/or early twentieth century. Part of the manufacturer's name remains on two fragments: "CHINA/D S & SON/L," and "SON LTD/N D." Two maker's marks (Cat. Nos. 1-0-982, 1-0-1002) are of stylized birds. Printed on a banner above one of the eagles is "IMPERIAL" (Fig. 34). The remaining two fragments (Cat. Nos. 1-0-977, 1-0-991) are non-diagnostic, except for the word, "IRONSTONE," on one.

A green printed mark of the Royal Crown is displayed on a fragment (Cat. No. 1-0-699). All that remains of a second green-printed mark is "England" (Cat. No. 1-0-474). A third green printed mark (Cat. No. 1-0-986) reads "____.T. & ____./ S--V /CHINA./S.E.J." (Cat. No. 1-0-986).

Portions of four blue-printed maker's marks were recovered. One of the marks (Fig. 34) exhibits a crown (Cat. No. 1-0-910). The upper-side of this fragment has a blue transfer print which appears to be a church. "S" (Cat. No. 1-0-922) and "RE" (Cat. No. 1-0-1022) are all that remains on two of the marks. Both fragments have blue transfer prints. "LOZ" is all that remains of the fourth mark (Cat. No. 1-0-875). Two other fragments have the same transfer print.

All that is discernible from a sherd (Cat. No. 1-0-1007) bearing a brown hallmark are the letters "POTTER."

A complete hallmark is impressed into the remains of a small platter (Cat. No. 1-0-325). The mark is an anchor. Unfortunately, the wording on it is not discernible. Several British potteries used the anchor as their insignia: British Anchor Pottery Co. LTD, Chelsea-Derby, Davenport, James Woodward (LTD), and Anchor Porcelain Co. LTD (Godden 1964). The platter has a width of 15.2 cm.

CERAMICS WITH IDENTIFIABLE SHAPES

Table 8 makes the group "ceramics with identifiable shapes" fairly self-explanatory, although some pieces deserve special comment.

Bowls

A fragment believed to have been from a bowl (Cat. No. 1-0-597) bears a hand-painted blue and red flower. On the inside of the sherd is a green band below the rim. Two other fragments (Cat. Nos. 1-0-598, 1-0-781) are either from the same bowl or from a set.

One ironstone bowl fragment (Cat. No. 1-0-553) is decorated with a moulded grape leaf below its rim.

Table 8

CERAMICS WITH IDENTIFIABLE SHAPES

<u>Shape</u>	<u>Color</u>	<u>Ware</u>	<u>Cat. No.</u>
Bowl	White	Ironstone	1-0-553
Bowl	White	Ironstone	1-0-413
Bowl	Blue	Porcelain	1-0-858
Bowl	Blue and White	Ironstone	1-0-894
Bowl	Blue transfer print	Earthenware	1-0-841
Bowl	White	Ironstone	1-0-537
Bowl, small footed	White	Ironstone	1-0-552
Bowl, small footed	White	Ironstone	1-0-541
Bowl, small footed	Blue transfer print	Earthenware	1-0-866
Bowl, small footed(?)	Red transfer print	Earthenware	1-0-570
Bowl, footed	White	Porcelain	1-0-520
Bowl, footed	Green transfer print	Earthenware	1-0-472
Bowl, footed	Blue transfer print	Earthenware	1-0-867
Bowl, rice	Green	Porcelain	1-0-340
Bowl, rice	Green	Porcelain	1-0-582
Bowl, rice	Blue on White (Imari)	Porcelain	1-0-724
			1-0-725
			1-0-726
Bowl(?)	White	Celadon	1-0-467
			1-0-1016
Bowl(?)	Red and White	Earthenware	1-0-484
Bowl(?)	White; blue; red; green	Earthenware	1-0-597
Cup	White	Ironstone	1-0-529
Cup	White	Ironstone	1-0-540
Cup	White	Ironstone	1-0-1320
Cup	White	Ironstone	1-0-436
Cup	White	Ironstone	1-0-890
Cup	White	Ironstone	1-0-395
Cup	White	Ironstone	1-0-397
Cup	White	Ironstone	1-0-396
Cup	White	Ironstone	1-0-426
Cup	White	Ironstone	1-0-538
Cup	White	Ironstone	1-0-426
Cup	White	Earthenware	1-0-392
Cup	White	Porcelain	1-0-41
Cup	White	Porcelain	1-0-410
Cup	White	Porcelain	1-0-69
Cup	White	Earthenware	1-0-575
Cup	Orange	Porcelain	1-0-351
Cup	White, red & green	Earthenware	1-0-677
Cup	White, red & green	Earthenware	1-0-679
Cup	Red transfer print	Semi-porcelain	1-0-446
Cup	Black transfer print	Ironstone	1-0-515
Cup(?)	White	Ironstone	1-0-413
Cup(?)	White	Ironstone	1-0-547
Cup(?)	White	Ironstone	1-0-539
Cup(?)	Blue transfer print	Earthenware	1-0-785
Cup with handle	White	Ironstone	1-0-335
Cup with handle	White	Ironstone	1-0-469
Cup with handle	White	Porcelain	1-0-392
Cup with handle	White with blue rim	Ironstone	1-0-398
			1-0-754
			1-0-755
Dish, footed	Blue (Imari)	Porcelain	1-0-833
Ginger jar	Brown	Earthenware	1-0-449
			1-0-638
Ginger jar	Blue-green	Earthenware	1-0-371
Lid	Blue (Imari)	Porcelain	1-0-720
Lid	Orange; green; yellow on white	Porcelain	1-0-566
			1-0-568
			1-0-571
Lid, tea pot	Green, brown; red	Porcelain	1-0-680
Milk pan	Mustard	Earthenware	1-0-1131
Milk pan	Tan	Earthenware	1-0-1111

(Continued)

Table 8

(Continued)

<u>Shape</u>	<u>Color</u>	<u>Ware</u>	<u>Cat. No.</u>
Plate	White	Ironstone	1-0-1323
Plate	White	Ironstone	1-0-560
Plate	White	Ironstone	1-0-655
Plate	Blue (Imari)	Porcelain	1-0-722
			1-0-723
Plate	Blue	Earthenware	1-0-363
			1-0-710
Plate	Dark blue	Earthenware	1-0-1015
Plate	Flow blue	Earthenware	1-0-817
Plate	Flow blue	Earthenware	1-0-729
Plate	Flow blue	Earthenware	1-0-730
			1-0-731
Plate	Flow blue	Ironstone	1-0-810
Plate	Blue transfer print	Earthenware	1-0-954
Plate	Blue transfer print	Earthenware	1-0-834
Plate	Blue transfer print	Earthenware	1-0-837
Plate	Green	Majolica	1-0-358
			1-0-361
Plate	White, with pink floral pattern	Earthenware	1-0-383
Plate(?)	Blue transfer print	Earthenware	1-0-782
Plate(?)	Black transfer print	Earthenware	1-0-1004
Plate(?)	White	Ironstone	1-0-522
Platter	White	Ironstone	1-0-319
Platter	White	Ironstone	1-0-424
Platter, cake	White	Ironstone	1-0-408
Platter, cake(?)	White	Ironstone	1-0-342
Sauce dish	White	Ironstone	1-0-341
Saucer	White	Porcelain	1-0-1321
Saucer	White	Porcelain	1-0-554
Saucer	White	Porcelain	1-0-386
Saucer	White	Porcelain	1-0-387
Saucer	White	Ironstone	1-0-654
Saucer	White	Ironstone	1-0-327
			1-0-328
Saucer	White	Ironstone	1-0-427
Saucer	White	Ironstone	1-0-326
Saucer	White	Ironstone	1-0-1322
Saucer	White	Ironstone	1-0-332
Saucer	White	Stoneware	1-0-333
Saucer(?)	Grey, brown; white	Porcelain	1-0-1033
Vase	Blue	Earthenware	1-0-721
Vase(?)	White	Porcelain	1-0-672

Two oriental porcelain "rice" bowls have a greenish celadon-type glaze. Celadon was developed to imitate jade (Gorham 1971:85-87; Boger 1971:56). One of the bowls (Fig. 38) is decorated with a blue hallmark on its base. A third piece of celadon (Cat. No. 1-0-466) is probably from a saucer. Three fragments of a white celadon bowl were recovered. The inside of the bowl has an abstract overglaze decoration in brown and red.

The remains (Fig. 39) of a rice bowl (Cat. Nos. 1-0-724, 1-0-725, 1-0-726) have been classified by Don Geer (personal communication 1983) as being Japanese Imari. The bowl is decorated with dark blue and light blue five-petal flowers. Imari is the name of a village port from which porcelain, produced eight miles away at Arita in the province of Hizen, was shipped to Nagasaki. From Nagasaki, porcelain was exported to other parts of Japan, China, Europe, and the New World (Boger 1971:159). The Imari in the collection are decorated in underglaze dark blue on a white-to-light blue background.

The application of underglaze blue is difficult because an unfired porcelain body is very porous and absorbent. To simplify the process, a decoration transfer technique was developed in which the design was first executed on tracing paper in charcoal, which would provide as many as twenty or

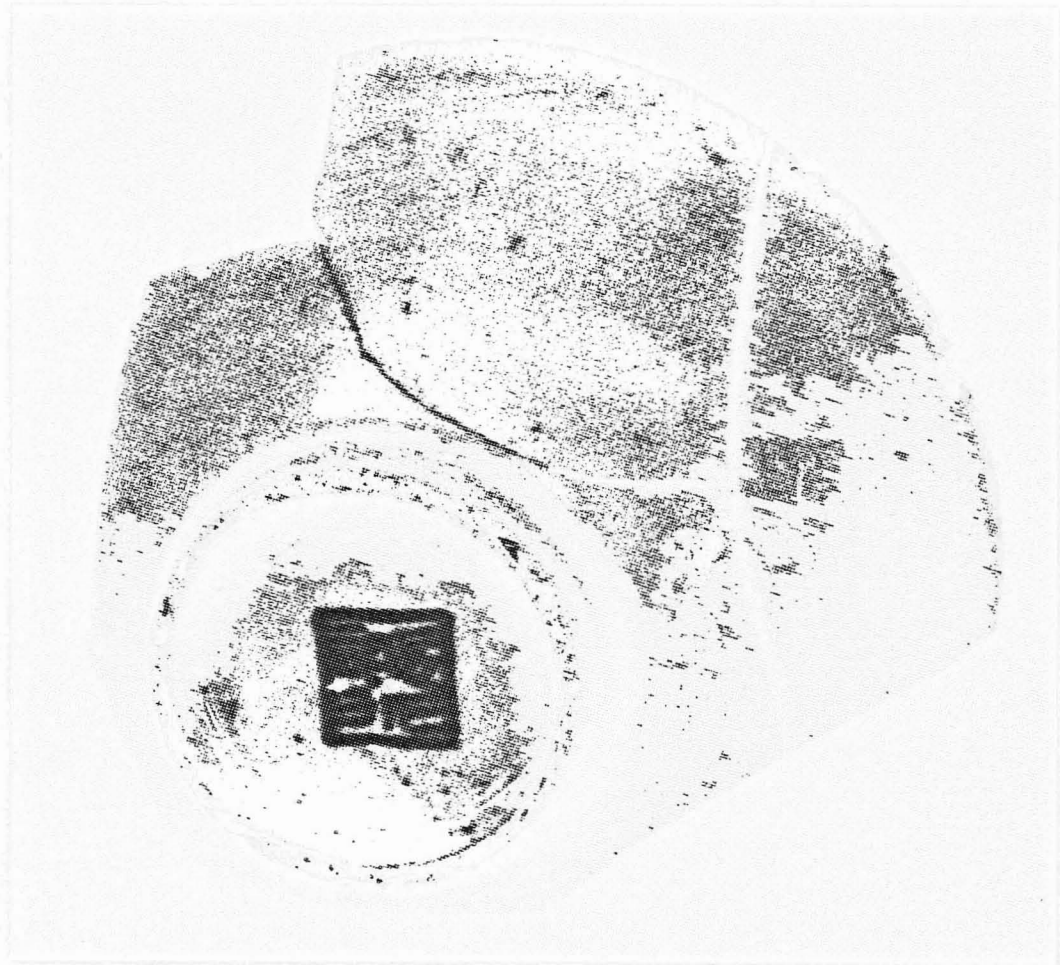


Fig. 38 Oriental porcelain rice bowl. Actual size.

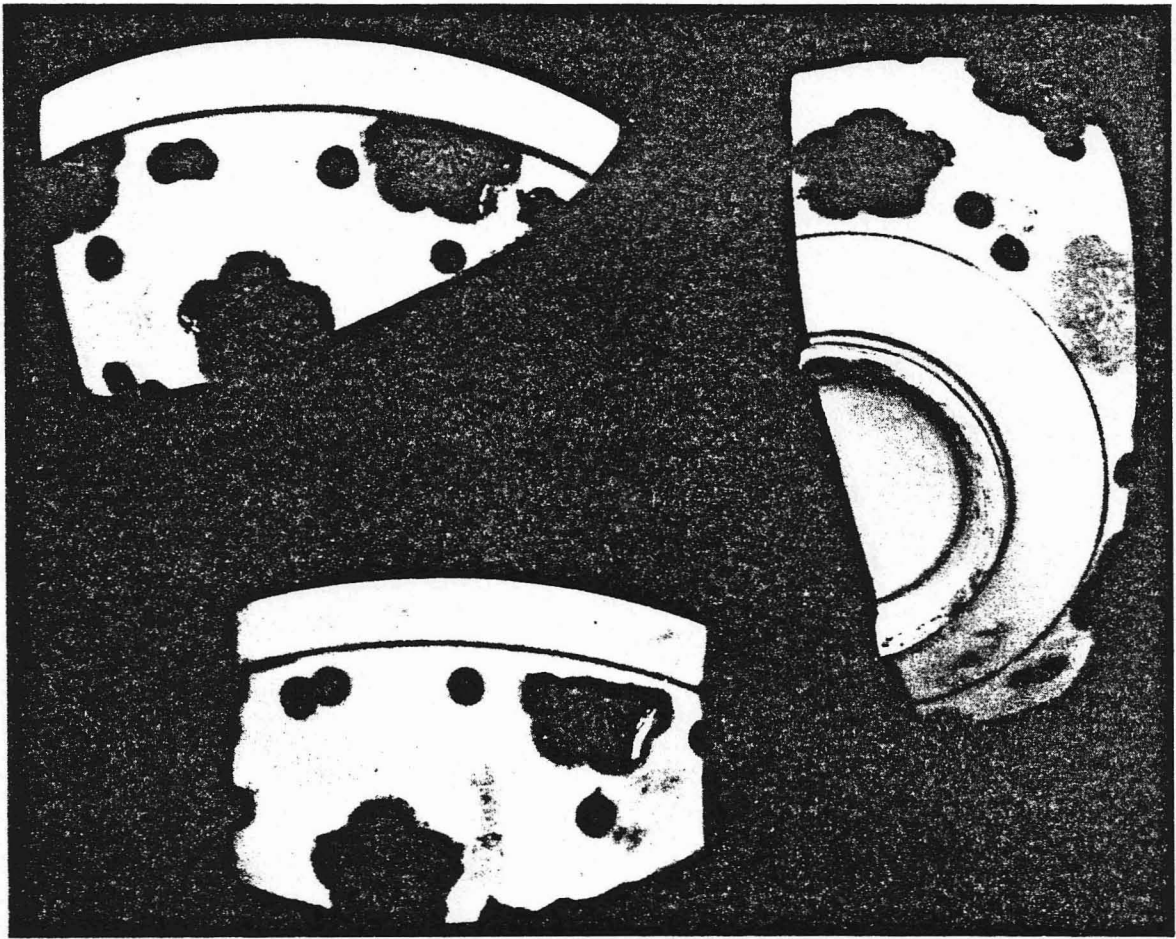


Fig. 39 Porcelain Japanese Imari rice bowl. Actual size.

more impressions, when rubbed against the unfired body. These outline impressions were filled with blue dye (Boger 1971:37).

Designs for Imari were taken from textiles (Boger 1971:159-160). According to Boger (1971:14-15), industrialization of ceramics in Japan did not occur until after the Meiji Restoration of 1868, when clan control was abolished. The Peña Adobe Imari therefore probably post-dates 1868. One cannot rule out the possibility that some of these objects may be English in origin. The English copied Chinese and Japanese designs during the eighteenth and nineteenth centuries (Hughes and Hughes 1956:91).

Cups

Only one of the cups (Fig. 40) is complete. It (Cat. No. 1-0-890) has a capacity of 11 ounces. Two of the "cups with handles" (Fig. 41) have twelve-sided bodies (Cat. Nos. 1-0-469, 1-0-335). Three fragmentary cups (Cat. Nos. 1-0-426, 1-0-436, 1-0-547) are also multi-sided. Although only fragmentary, enough remains of one cup (Cat. No. 1-0-538) to show that it had a moulded decoration on its body. All of the above cups have a white-tint glaze.

The most elaborately decorated cup (Fig. 42) in the collection has a moulded floral pattern encircling its base.

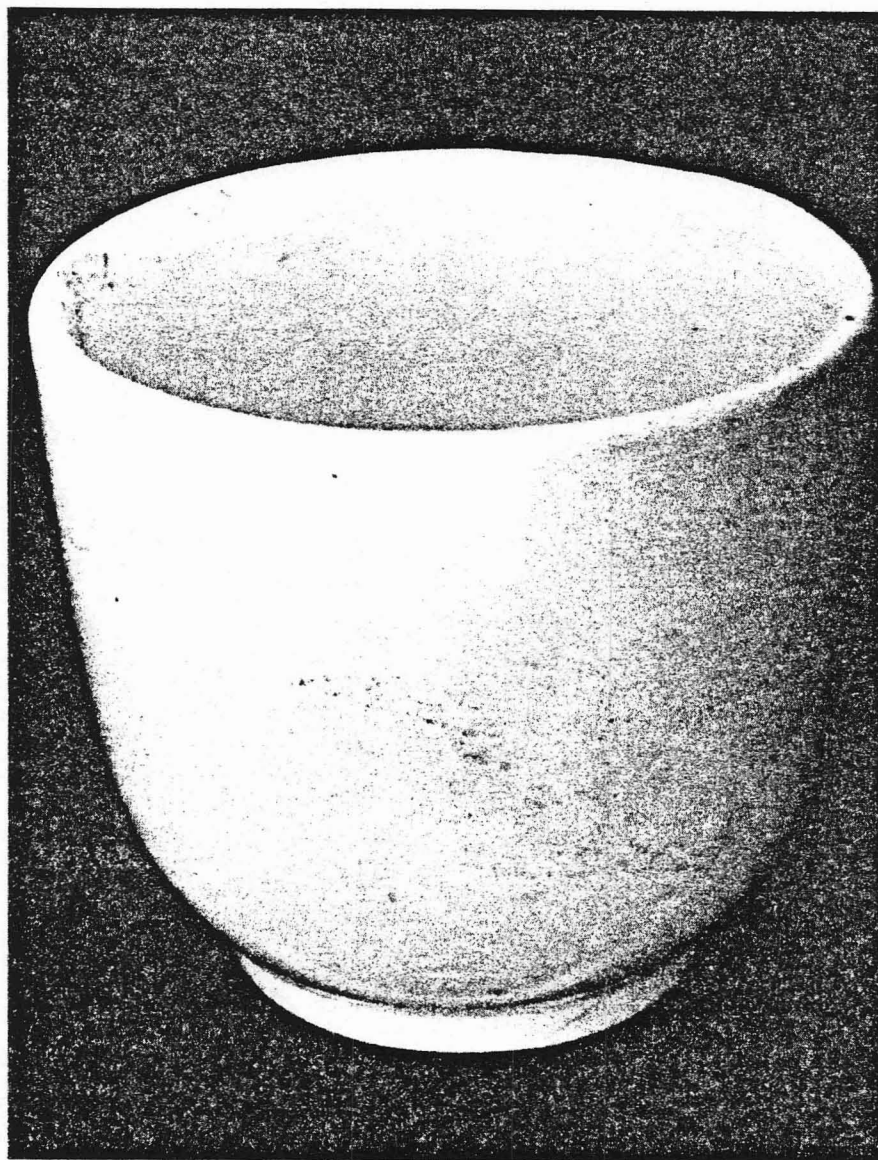


Fig. 40 Ceramic (Ironstone) cup. Actual size.

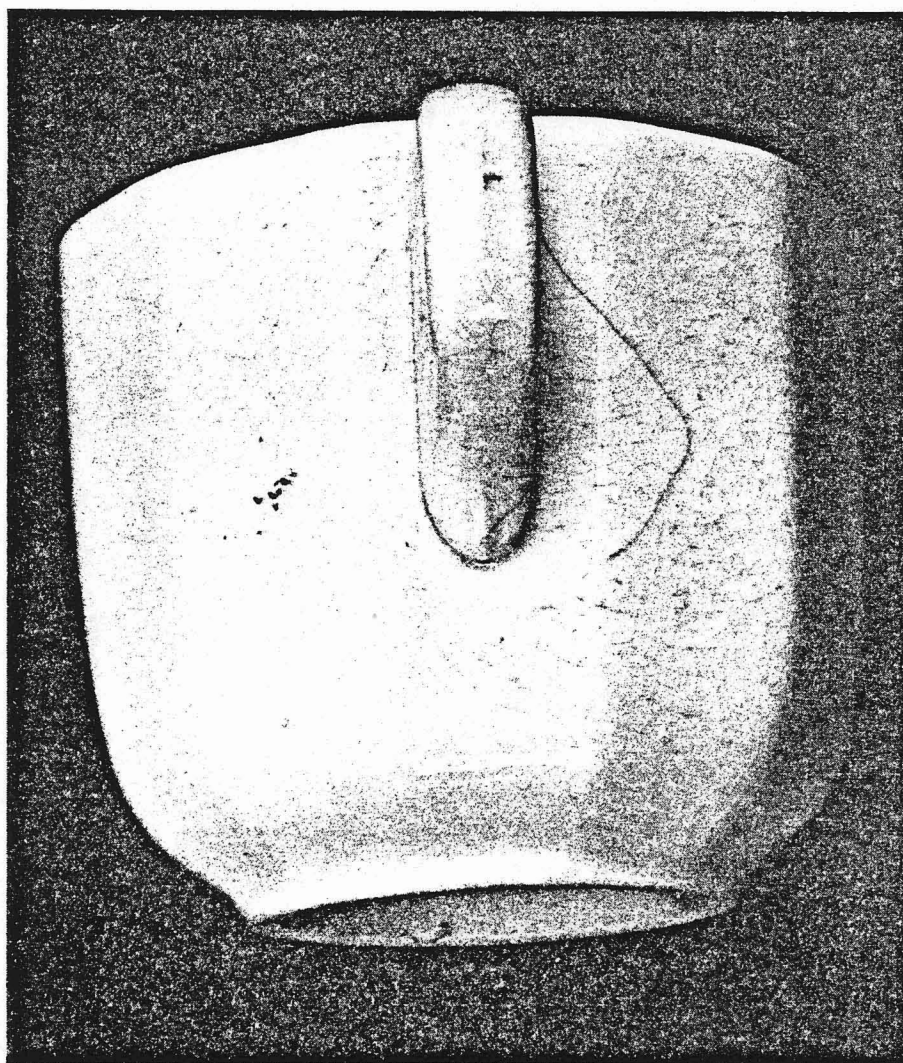


Fig. 41 Ceramic (Ironstone) cup with handle.
Actual size.

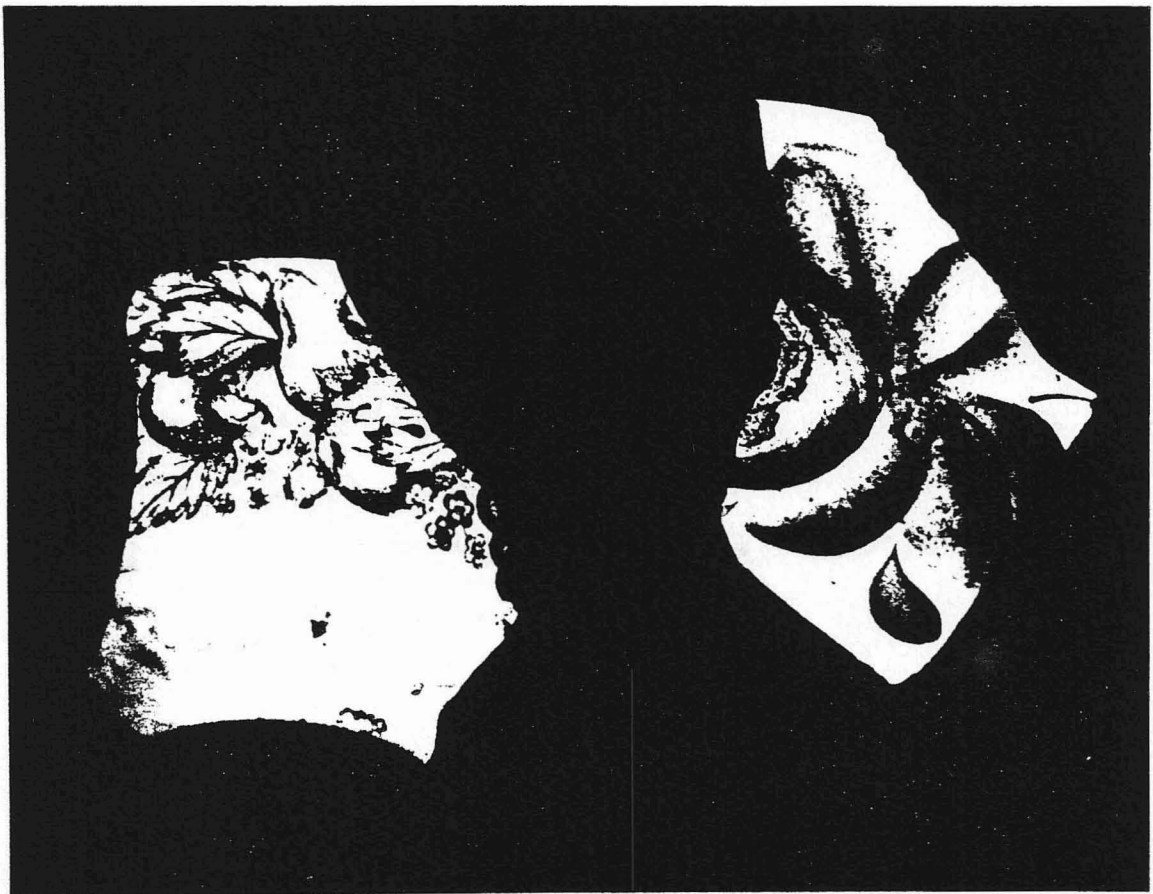


Fig. 42. Ceramic cup fragments. Cup with a moulded floral pattern encircling its base, and a red underglaze printed design of apples and pears; cup with a hand-painted floral motif. Actual size.

Directly above this moulded band is a red underglaze printed design of apples and pears. This English cup (Cat. No. 1-0-446) has a height of 6.3 cm and is believed to date prior to the 1890s (Don Geer, personal communication 1983).

Fragments (Fig. 42) from at least two (Cat. Nos. 1-0-677, 1-0-679), and possibly three, hand-painted cups were recovered. The cups have an underglaze floral motif painted in red and green. On the inside of the cups, near the rim, is a black painted band. The cups are believed to have been handleless and from the Peña period (Don Geer, personal communication 1983).

An orange porcelain cup fragment (Cat. No. 1-0-351) is Japanese or Chinese in origin. Green markings over the glaze decorate the cup. Three other fragments (Cat. Nos. 1-0-352, 1-0-1118, 1-0-353) are of similar ware and markings.

One white cup has a blue band just below its rim, and a blue stripe on its handle. A porcelain cup (Cat. No. 1-0-410) has a brown floral decoration applied on a white translucent glaze. Don Geer (personal communication 1983) gives this fragment a date of circa 1880-1890.

Dish

The collection contains a beautiful Japanese Imari footed dish (Fig. 43) identified by Don Geer. This cobalt blue-on-white porcelain piece (Cat. No. 1-0-833) is decorated with flowers and abstract houses. The outside of the dish has three strands of flowers which form a discontinuous circle. Two light blue lines circle the footed base.

Ginger Jars

One fragment, glazed brown exterior and light yellow interior, is believed to be the remains of a Chinese ginger jar (Don Geer, personal communication 1983). A second ginger jar (Fig. 44) has a bluish-green glaze. It is generally thought that these jars were filled with sweetmeats, ginger, and tea. They were given to relatives and friends during the Chinese New Year holidays as presents, with the jars being returned to the owners (Boger 1971:129).

Lids

An almost complete lid (Fig. 44) of a Japanese tea pot (Cat. No. 1-0-680) was recovered. Hand-painted, under the glaze, is an ornate floral design in green, brown, and pink.

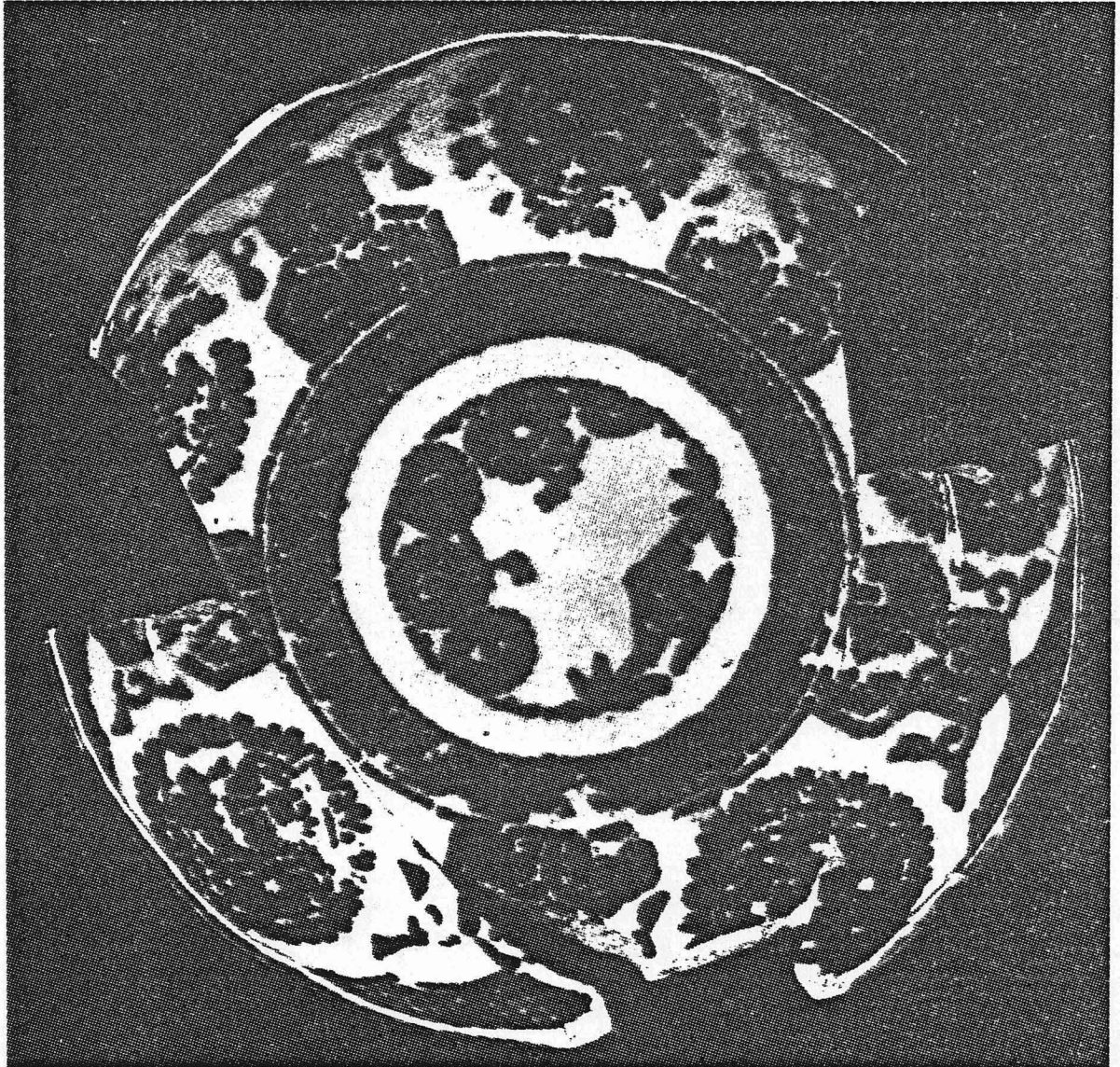


Fig. 43 Porcelain Japanese Imari dish. Actual size.

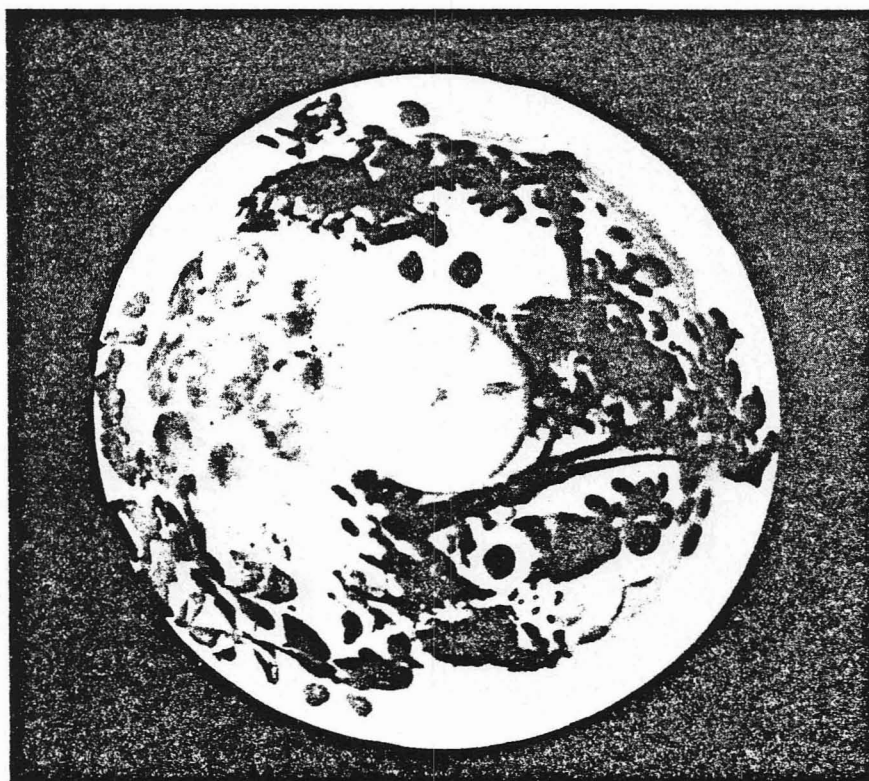
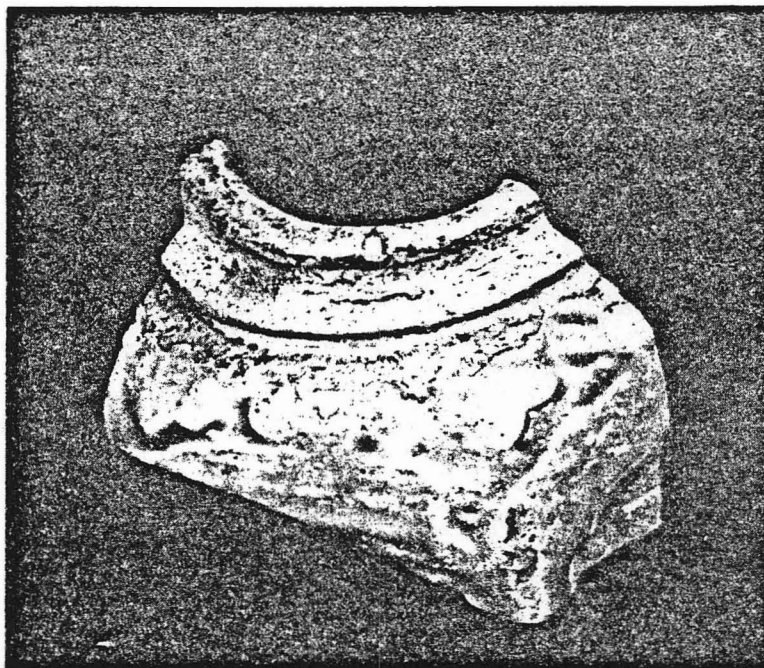


Fig. 44. Upper: Ceramic ginger jar.
Lower: Porcelain Japanese
teapot lid. Actual size.

Fragments from another lid show a floral design in orange, yellow, and green, on a white porcelain background. The design seems Oriental.

A Japanese Imari lid (Fig. 48) 8.3 cm in diameter appears to be decorated with an underglaze blue Chinese arrowroot (Nelumbo nucifera) motif (Cat. No. 1-0-720). The edible tubers of this plant which is in the ginger family were much esteemed by the Chinese and Japanese (Neilson 1959:468).

Milk Pans

One nearly complete milk pan (Fig. 45), and a rim fragment of what is believed to have been a second milk pan, are identified as such in Ketchum (1971:90-91). Don Geer (personal communication 1983) believes that these milk pans date from sometime just prior to the turn of the century into the 1930s. Both were tured on a potter's wheel, and glazed.

Plates

Green majolica plate fragments (Fig. 63) have a bold relief decoration, analogous to the veins in a leaf. The nineteenth century brought about a revived interest in sixteenth century Italian majolica. During the Victorian

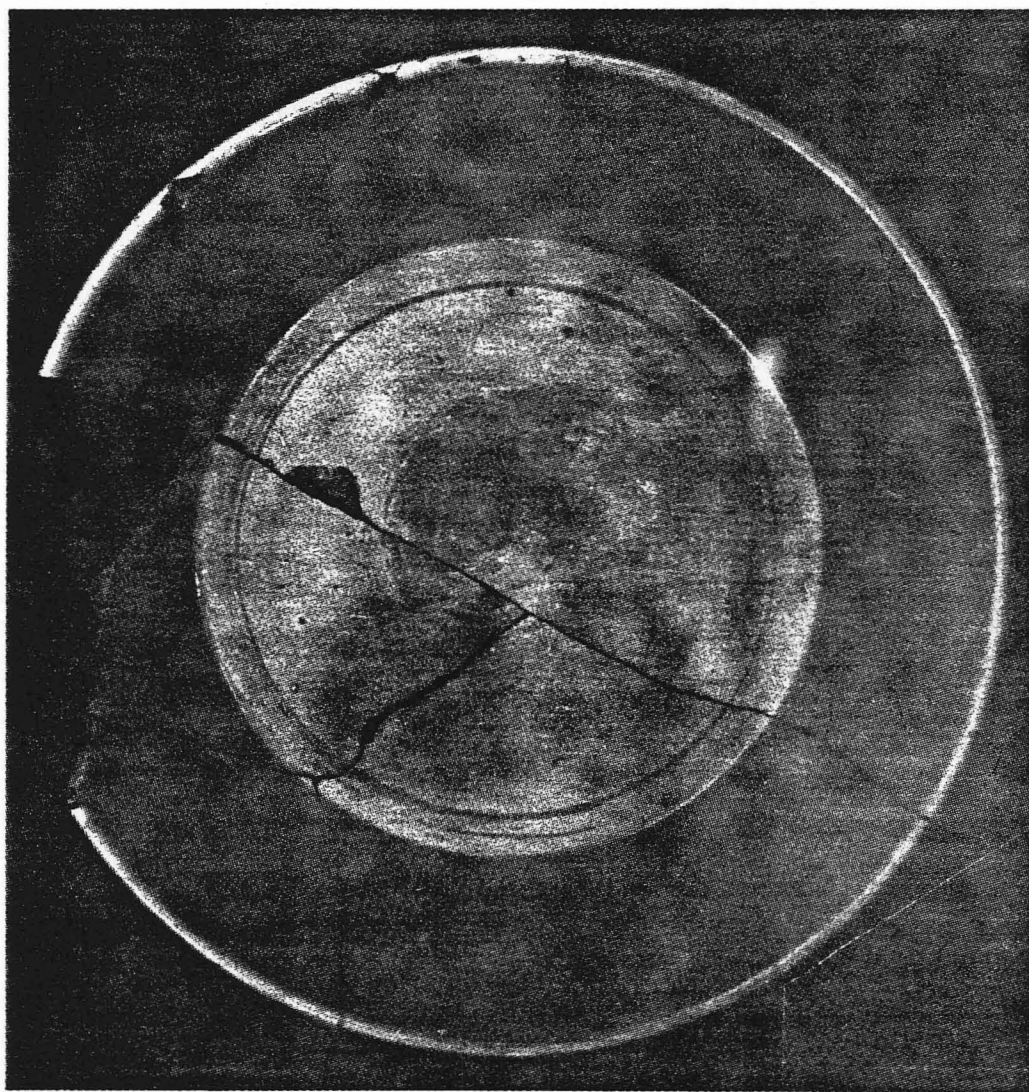


Fig. 45. Ceramic milk pan. Actual diameter 31 cm.

period, several European countries and the United States mass-produced majolica products (Boyer 1971:210-211).

Two fragments (Cat. Nos. 1-0-363, 1-0-710) of a plate, manufactured in Europe circa 1880-1890, have moulded rims (Don Geer, personal communication 1983). The plate is colored, blue and brown.

Numerous fragments (Fig. 63) from at least two plates of flow blue were recovered. According to Ray (1974:69) "flow blue" is a term used on all "stone" china having blurry, blue decorations. A chlorinated vapor, deliberately introduced into the kiln, caused the blue color to spread and blur. Blue was the color originally associated with the ware, because in the early stages, blue, derived from cobalt, was the only then-known color which would survive the temperature required to fuse the overlying glaze (Boyer 1971:117). Fragments, in this case, are blue around the rim on an otherwise white-tint glaze body. By the early to mid-1800s, "flow blue" was being inexpensively produced for international trade by almost every Staffordshire pottery firm.

Remains of a plate (Cat. No. 1-0-834) and bowl (Cat No. 1-0-841) display the same blue transfer print. Other fragments are from the same set, but they are too fragmentary to identify their original shapes. Some of the fragments may

be from a cup. Transfer-printing is a method first used in England. The desired print is first engraved onto a copper-plate. This intaglio is filled with a thick, oily ink. Transfer paper is applied to the copper-plate. The impression is lifted from the copper-plate to the paper, which is then transferred to the surface of unglazed pottery or porcelain. The paper is subsequently soaked off, leaving its print on the pottery; the object is then glazed (Hughes and Hughes 1956:50). Since circa 1760, this method was used for underglaze printing in blue. Most printed wares were inexpensive. For this reason printing remained, in most instances, monochrome with blue being the favorite color. Red, black, and other colors began to appear in underglaze prints during the second quarter of the nineteenth century. These pigments consist chiefly of refined mineral oxides. Ceramic fragments with transfer prints were most likely manufactured in England. Printed wares were first made around 1840 in the United States, but they never captured as wide a market as did the Staffordshire and Liverpool potteries (Boger 1971:348; Godden 1975:228-229).

What is believed to be a plate fragment (Cat. No. 1-0-1004), has a black transfer print and the words, "Give us" in italics.

Remains of one heavy Japanese Imari plate (Fig. 46) were recovered. The plate (Cat. No. 1-0-722) is ornamented with two underglaze blue stork-like birds (perhaps a Japanese Ibis) in coniferous trees.

Platters

One fragmentary (Cat. No. 1-0-319) serving platter (Fig. 47) has a width of 24.3 cm, and Don Geer (personal communication 1983) believes that an unusually shaped fragment (Cat. No. 1-0-342) represents a cake platter.

Sauce Dish

A white sauce dish (Fig. 48) manufactured in England, has a diameter of 8.9 cm (Don Geer, personal communication 1983).

Saucers

Porcelain fragments (Fig. 49) from two saucers (Cat. Nos. 1-0-386, 1-0-387, 1-0-391) are ornately decorated. Portions of the rims on these fragments are moulded in relief and painted in gold and yellow. Green leaf motifs stand out on the otherwise white body.



Fig. 46 Porcelain Japanese Imari plate. Actual size.

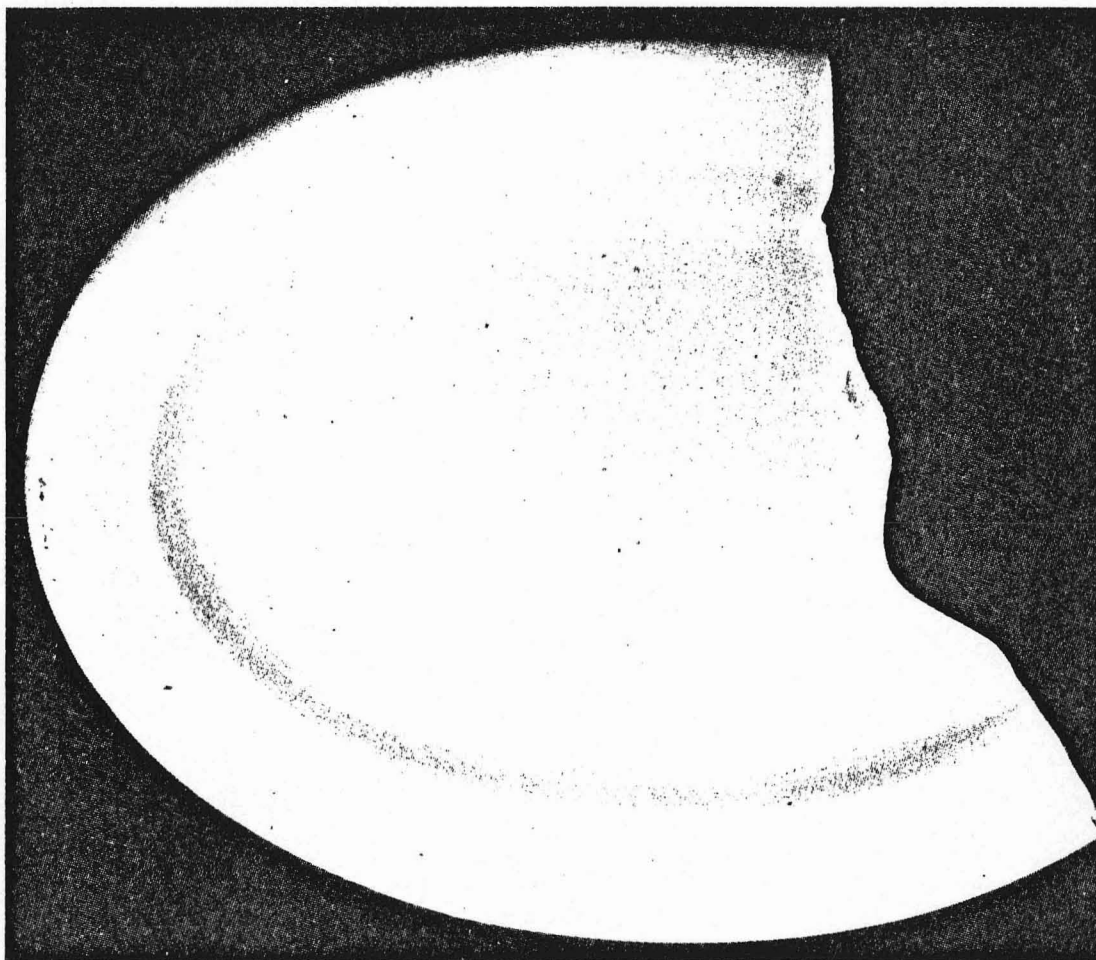


Fig. 47. Ceramic (Ironstone) serving platter. Actual width
24.3 cm.

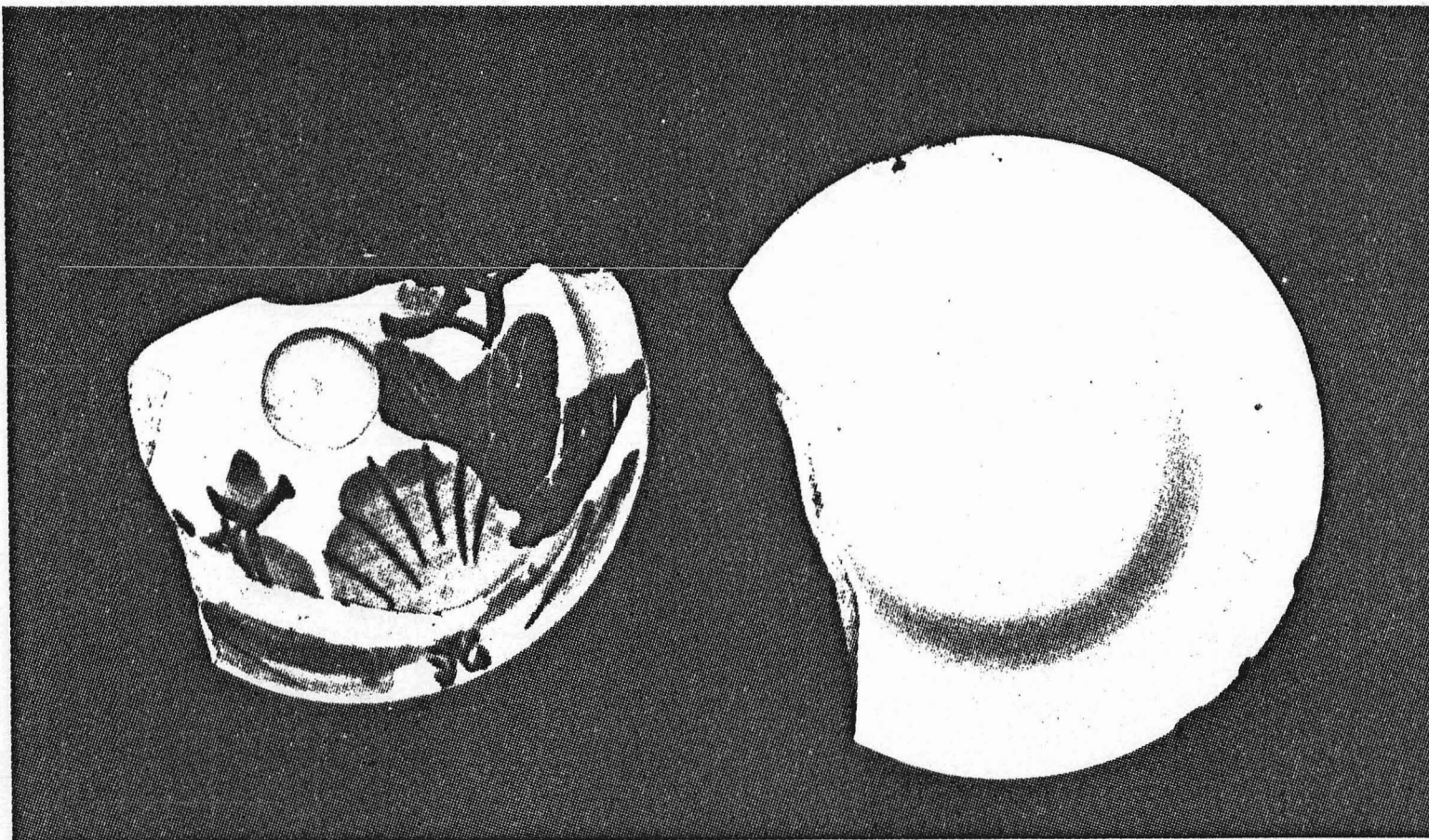


Fig. 48. Porcelain Japanese Imari lid with a Chinese arrowroot motif; ceramic sauce dish. Actual size.

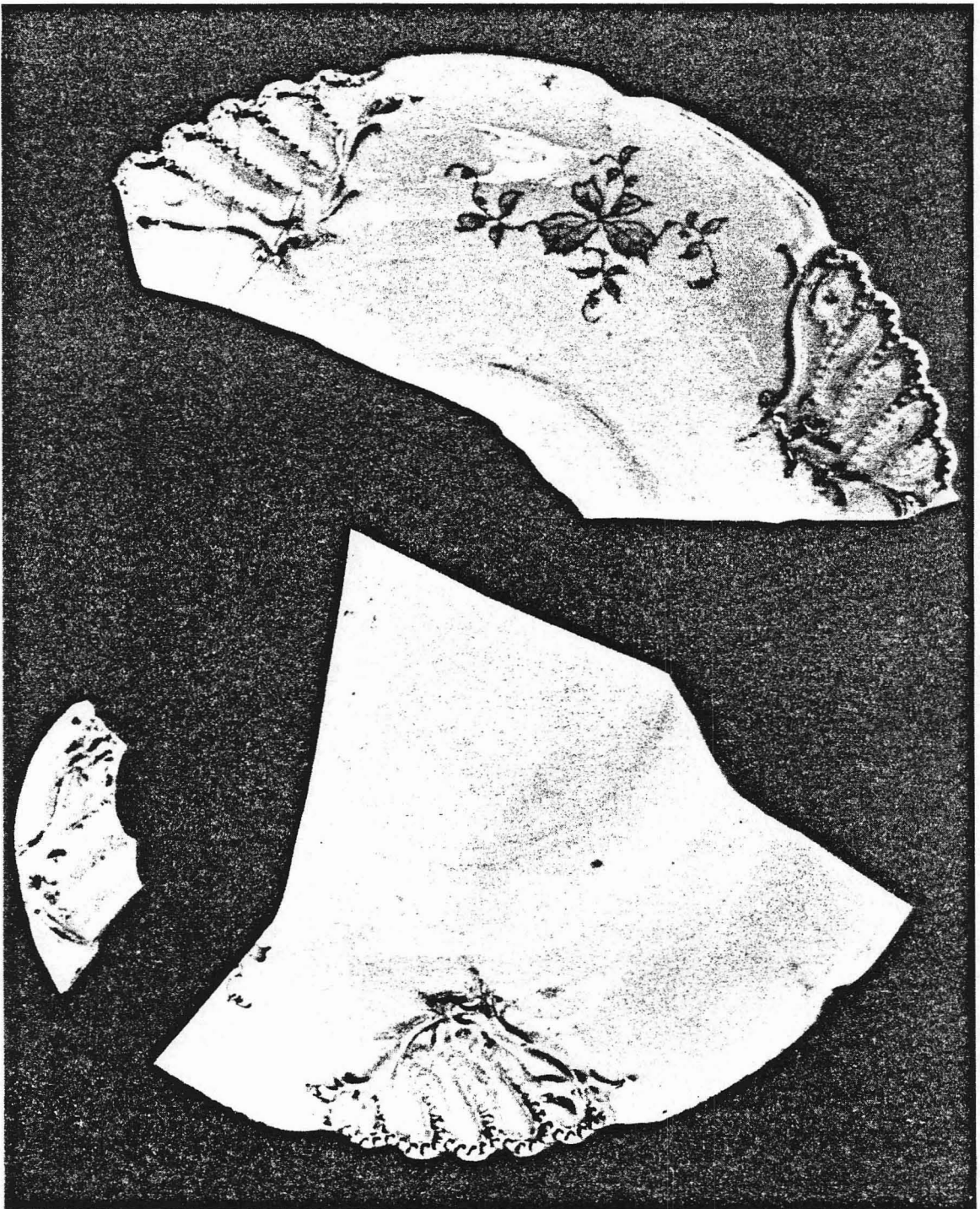


Fig. 49 Porcelain saucer fragments. Actual size.

Two of the saucers (Cat. Nos. 1-0-332, 1-0-333) have the same moulded rim pattern, and may have belonged to a set. Two fragments (Cat. Nos. 1-0-327, 1-0-328), possibly from the same saucer, also have a moulded rim decoration. A porcelain saucer fragment (Cat. No. 1-0-554) has a "pie-crust" moulded edge, and underglaze flower.

The inside of an otherwise undecorated saucer (Fig. 50) has twelve small radiating panels. On the base of this saucer (Cat. No. 1-0-326), printed in green, is "3-28." Remains of another saucer (Cat. No. 1-0-427) reveal that it too had a multi-radiating panel pattern on the inside.

Vase

White grapes and a white grape leaf (Fig. 63) stand in bold relief against a blue background on what is believed to be a vase. Don Geer (personal communication 1983) suggests that this may be a Japanese copy of Wedgwood. This semi-vitrous piece was fired at a high temperature.

Miscellaneous Fragments

White handles (Cat. Nos. 1-0-393, 1-0-394, 1-0-614, 1-0-662, 1-0-714) from five ironstone cups were recovered. Two white ironstone handles (Cat. Nos. 1-0-621, 1-0-668) are decorated with a blue stripe. Blue transfer prints are

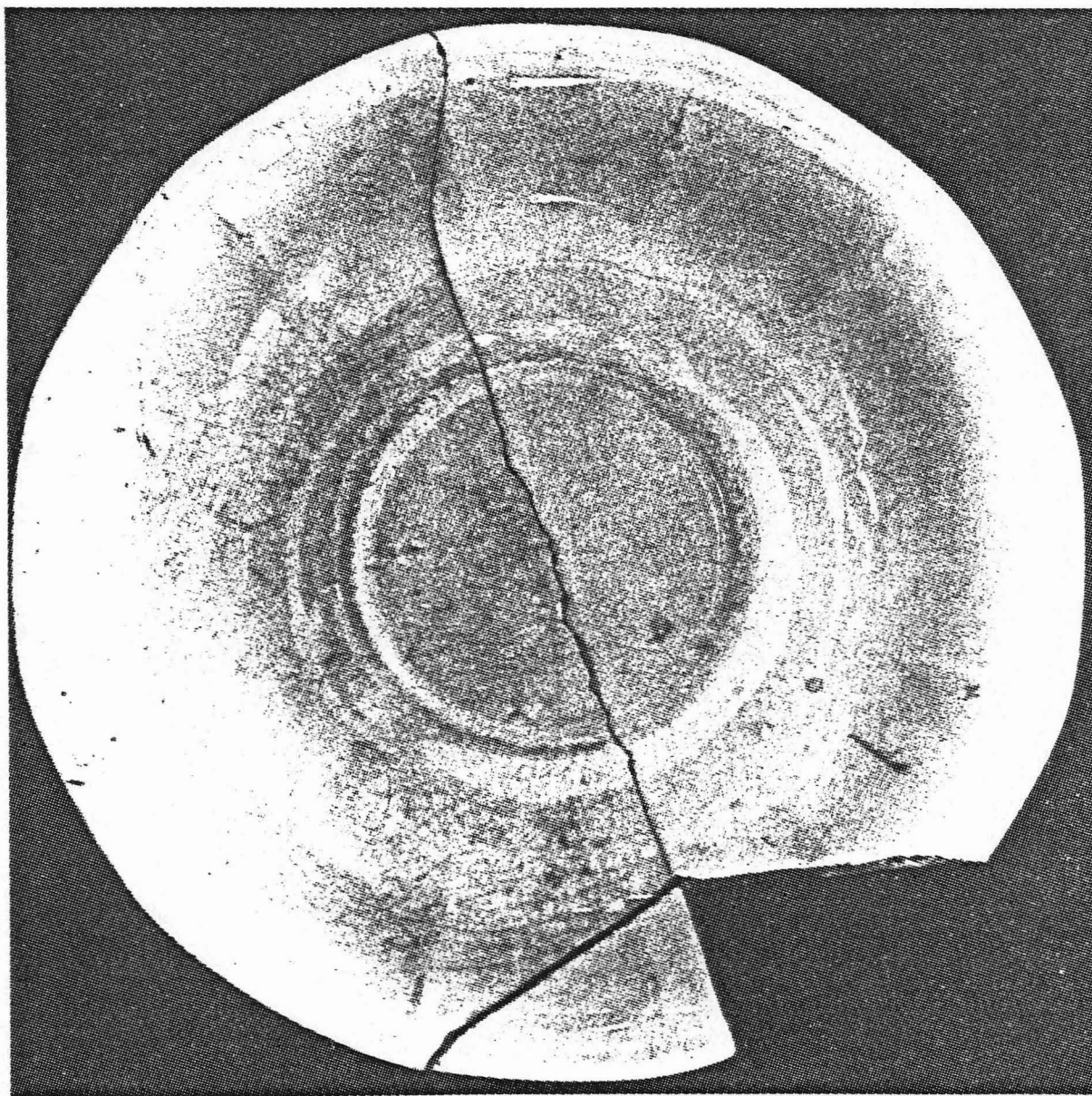


Fig. 50. Ceramic (Ironstone) saucer. Actual size.

displayed on two other handle fragments (Cat. Nos. 1-0-829, 1-0-869). Of the remaining three handle fragments, one is blue (Cat. No. 1-0-563), one gold (Cat. No. 1-0-616), and one, white porcelain (Cat. No. 1-0-615).

A very thick ironstone rim fragment (Cat. No. 1-0-536) cannot be positively identified. It may have been from a soup tureen, large bowl or perhaps a chamber pot.

Three unidentifiable base fragments (Cat. Nos. 1-0-522, 1-0-542, 1-0-525) undoubtedly represent either saucers or plates.

BOTTLES, JARS, AND CROCKS

Early in the 1800s, utilitarian items of stoneware (except bottles) were made almost exclusively in the United States (Munsey 1970:140). Almost all specimens in this category are of stoneware. Stoneware was very popular because of its durability, inertness to acids and bases, and imperviousness to liquids. Crock commonly held salted beef or pork, pickled vegetables, or salted butter. Jugs and bottles kept water cool (Webster 1971:23). As mentioned earlier, stoneware is a "high-fired," hard, non-porous crockery. Typical stoneware was glazed with table salt, which was heated and then thrown into the ware-filled kiln when firing was at its maximum temperature. The salt would instantly vaporize, releasing chlorine and leaving the

sodium to combine with the silica in the clay. This covered the crockery with a clear, thin, pitted glaze (Ketchum 1971: 49-50; Munsey 1970:140).

JARS

Parts of at least six separate stoneware vessels were collected. Fragments (Cat. Nos. 1-0-348, 1-0-402, 1-0-403) of one stoneware jar have a white glaze interior and an unglazed exterior. The jar had a diameter of approximately 13.5 cm.

Ointment Jar

A white-glazed black-printed ointment jar (missing from the collection) read, "Holloway's Ointment, for the cure of scrofula-inveterate ulcers, etc." (The Vacaville Reporter 1963b:17; Clifford Curtice, personal communication). Scrofula is an antiquated term for a disease of the lymph nodes in the neck caused by a tuberculosis-like organism. This disease has become uncommon in the United States because infected cattle are destroyed and milk is pasteurized (Petersdorf 1983:1023). The ointment was applied to ulcers.

CROCKS

One crock (Fig. 51) is represented by a rim fragment (Cat. No. 1-0-338) that has a greyish-brown salt-glazed exterior and a semi-lustrous brown interior. Numerous fragments (Cat. No. 1-0-337) from a large vessel, probably a crock, have a clear salt-glaze exterior and a brown glazed interior. Two fragments of this vessel are decorated with a simple abstract motif. Three fragments (Cat. Nos. 1-0-429, 1-0-430, 1-0-431), from a crock body or other vessel type, have a clear salt-glaze exterior and a dark brown interior. Light yellow glazed rim fragments (Cat. No. 1-0-375) of a probable crock display a simple pattern in relief. Three pieces of a greyish blue salt-glazed stoneware crock, or other vessel type, were recovered (Cat. Nos. 1-0-319, 1-0-716, 1-0-717). The crockery is salt-glazed directly over the clay without underlying slip. All three fragments are decorated with a blue cobalt oxide glaze. The remaining stoneware vessel consists of a small, non-diagnostic fragment salt-glazed in brown.

The base of a brown-colored earthenware vessel (Cat. No. 1-0-422), possibly a jar or small crock, has a diameter of 8.4 cm. Fingerprints are visible on this crude hand thrown piece (Don Geer, personal communication 1983). Three

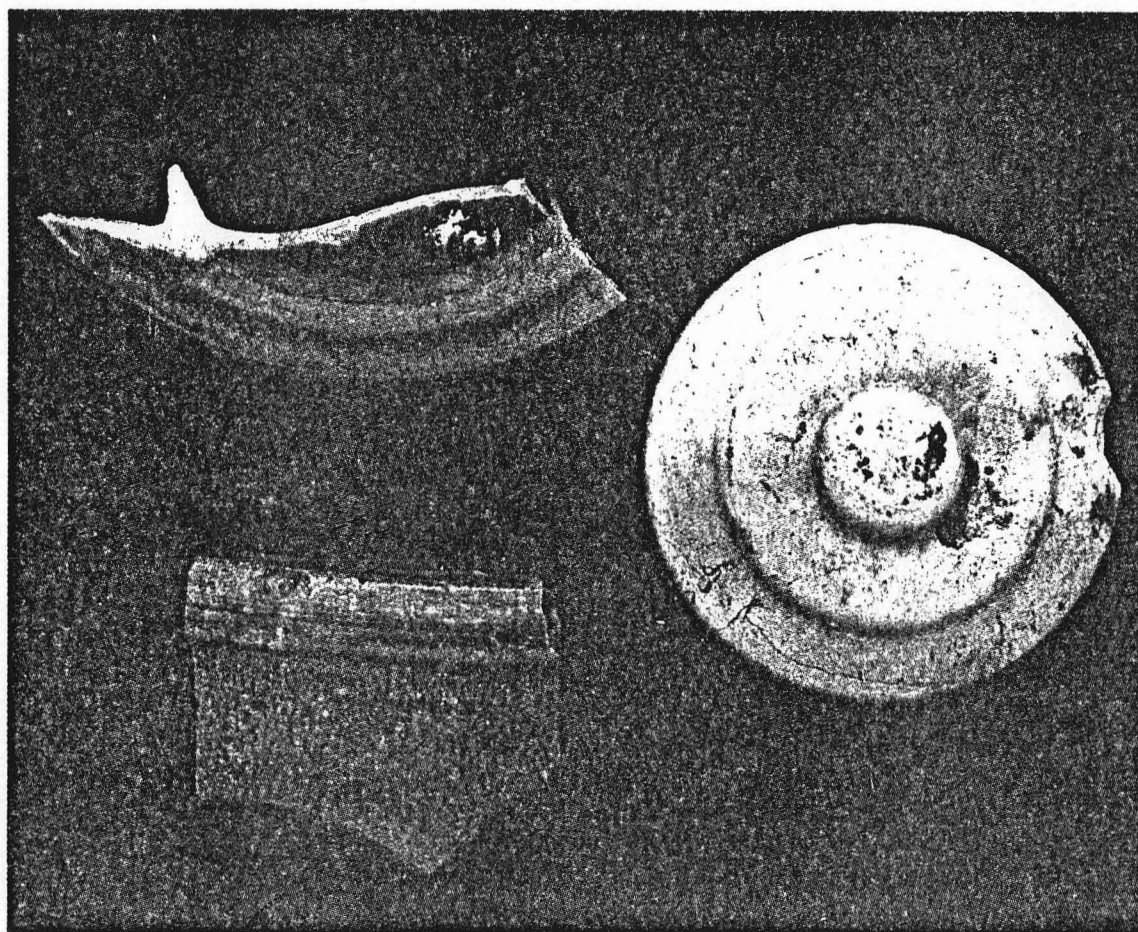


Fig. 51. Food storage artifacts. Stoneware cover; stoneware crock; bean pot cover. Actual diameter of bean pot cover 12.2 cm.

non-diagnostic fragments (Cat. Nos. 1-0-633, 1-0-634, 1-0-423) are of a similar material and texture.

Part of a stoneware crock cover (Fig. 51) 21 cm in diameter displays a salt-glaze. The rim of the lid (Cat. No. 1-0-336) is tan, whereas the center is dark brown. An almost complete unglazed earthenware lid (Fig. 51) is brown on the underside and tan on top. This lid (Cat. No. 1-0-304) has a diameter of 12.5 cm and may have been part of a bean pot, preserves jar, or herb pot. Two other unglazed earthenware fragments were recovered. One (Cat. No. 1-0-441) is perhaps a fragment of a plate base. It has a brown exterior slip. The remaining sherd is a vessel rim fragment, perhaps a bowl, with a brown inner slip.

BOTTLES

One nearly complete stoneware bottle (Fig. 52) probably contained ale. Ale is a strong, fermented, aromatic malt beverage which is darker, heavier, and more bitter than beer (Wilson 1981:7-8). Before pasteurization, (1873) ale was favored over beer which had a short shelf life, and could not be shipped long distances. Ale, with its higher alcohol and undecomposed sugar content, did not become stale or spoil quickly, and seems to have been a common beverage on the western frontier (Switzer 1974:9). The upper portion of

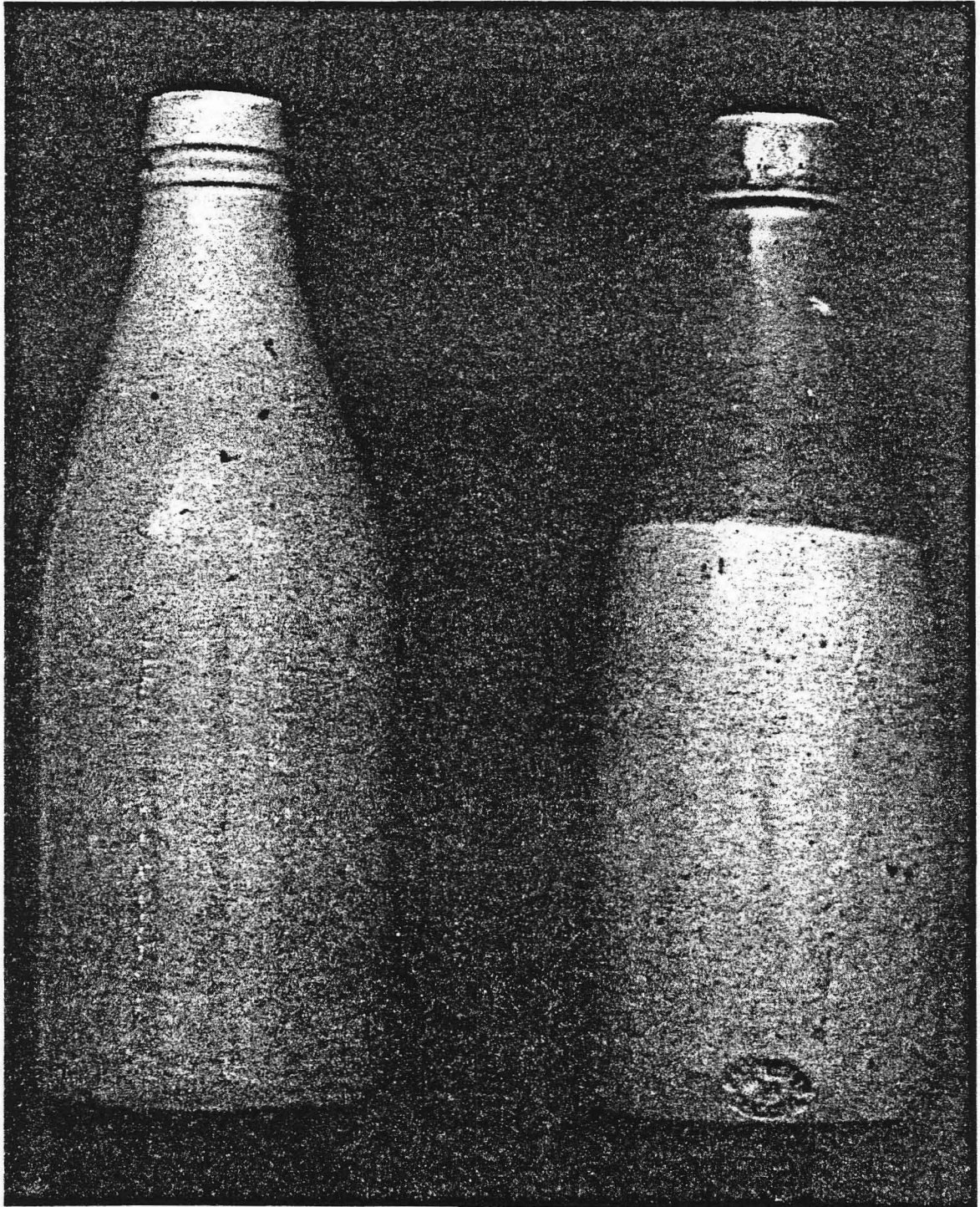


Fig. 52 Stoneware bottles. Beer or ale bottle; ale bottle stamped "GROSVENOR/14/GLASGOW." Bottles shown three-fourths actual size.

this salt-glazed bottle (Cat. No. 1-0-297) was dipped in a "light brown" slip while the lower portion remained "natural". Impressed on the body, near the base of the bottle, is "GROSVENOR/14/GLASGOW." This is the stamp of the bottle manufacturer, Frederick Grosvenor, who founded this Scotland firm in 1869. The absence of "& SON" probably dates the bottle earlier than 1899 (Godden 1964:295). There were several breweries operating in Scotland which could have used this 0.5 liter bottle.

A second stoneware bottle (Fig. 52), once containing either beer or ale, was most likely manufactured in Britain (Munsey 1970:135, 137). This 0.5 liter bottle (Cat. No. 1-0-298) is cream-colored with a salt-glaze finish. Because they were intended for contents under pressure, pottery bottles were sealed with wired-on stoppers (Munsey 1970:135).

Pottery bottles were cheaper to produce than glass ones during the period of hand glassblowing, and were less vulnerable to breakage. This economic advantage was challenged with the advent of the crown cap and automatic bottle machine (refer to pages 50, 63, 65) which rapidly brought about the demise of stoneware bottles. From 1860 to 1920 stoneware manufacture was gradually phased out (Ketchum 1971:52) as improved canning methods, refrigeration, and inexpensive glass containers made them obsolete (Webster

1971:23). Munsey (1970:134, 137) dated these wheel thrown bottles to the late 1800s.

HOUSEHOLD AND PERSONAL ITEMS

TOILET WARE

Chamber Pots

The base and partial body of a chamber pot (Cat. No. 1-0-330) was recovered. Impressed in the 14.6 cm in diameter base is an "L" or "7." The rim around the base is hollow, indicating the base and body were manufactured separately. A base fragment (Cat. No. 1-0-407) is probably also part of a chamber pot.

A chamber-pot lid (Fig. 53) was also salvaged. The lid (Cat. No. 1-0-300) has a handle in its center with a moulded bow displayed on each side of the handle. A small fragment (Cat. No. 1-0-617) has the same moulded bow design as the lid above. This fragment may represent a second chamber pot or it may be part of a matching toilet set.

The collection also contains one fragment of a chamber pot handle (Cat. No. 1-0-435). All five of the above pieces are white-glazed ironstone.

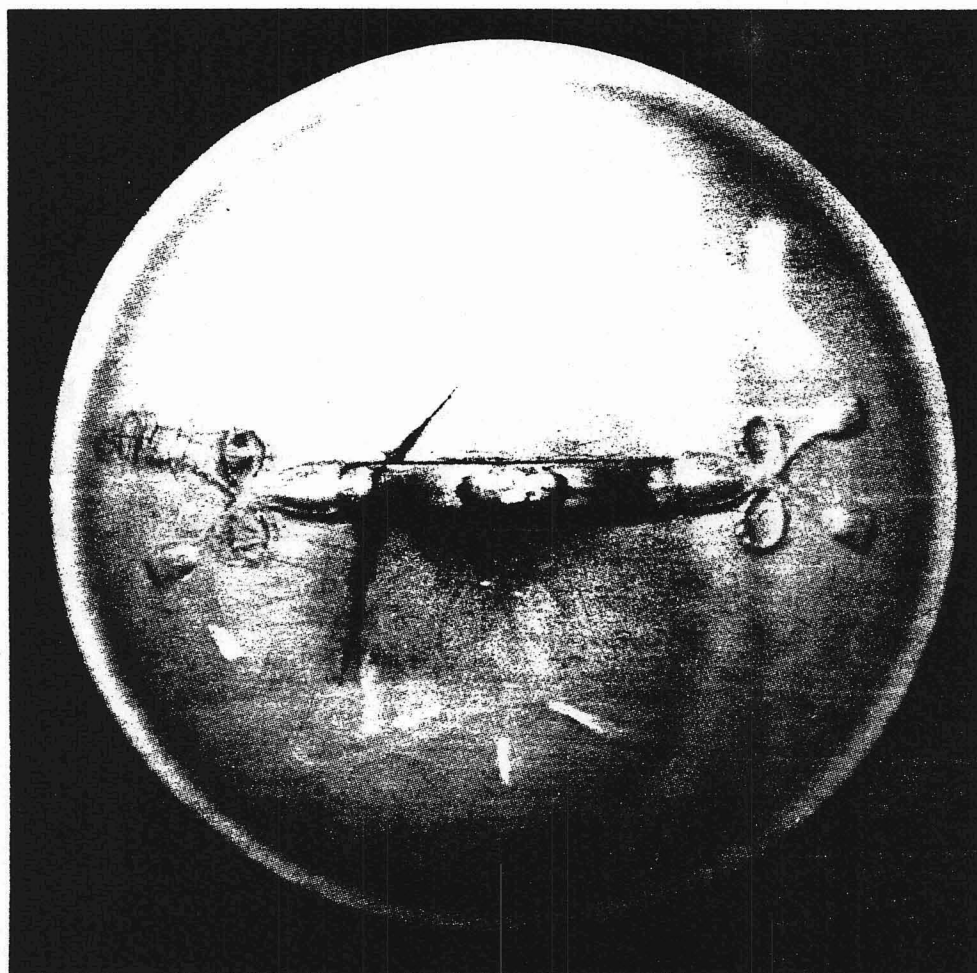


Fig. 53. Ceramic chamber-pot lid. Actual diameter 24.3 cm.

A second whiteware chamber-pot lid (Fig. 54) is highly decorative. It has a gold scalloped edge. The upperside of the lid (Cat. Nos. 1-0-346, 1-0-1127) has a simple blue moulded pattern. An underglaze blue flower and green leaf print makes this piece especially attractive. The flower petals are outlined by etchings in the glaze.

All of these toilet pieces are probably of English origin (Don Geer, personal communication 1983).

Toothpaste or Cold Cream Container

Three fragments (Fig. 57) from an earthenware lid represent a container that probably held either toothpaste or cold cream (Ferraro and Ferraro 1964:66-68). The fragments (Cat. Nos. 1-0-1104, 1-00-1105, 1-0-1106) are decorated in red print on a white background. White stars on a red background circle the circumference of the lid. Red letters "LES U/S" are all that is discernible.

INKWELL

One nearly complete stoneware inkwell (Fig. 55) was found during restoration work at the Peña Adobe. The vessel (Cat. No. 1-0-301) has a salt-glaze finish over a brown slip. The height of the well is almost 5 cm.

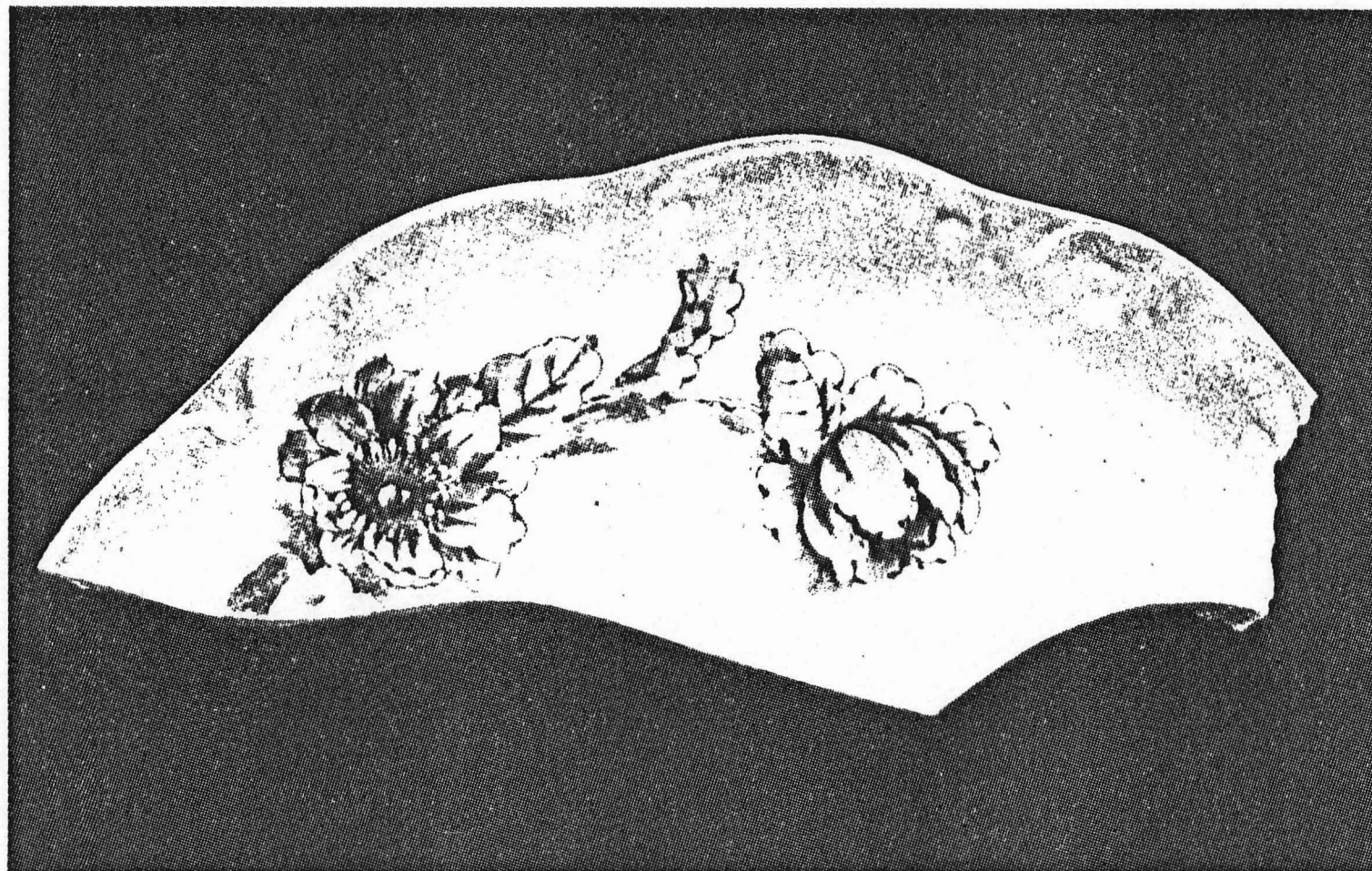


Fig. 54. Ceramic chamber-pot lid. Actual size.

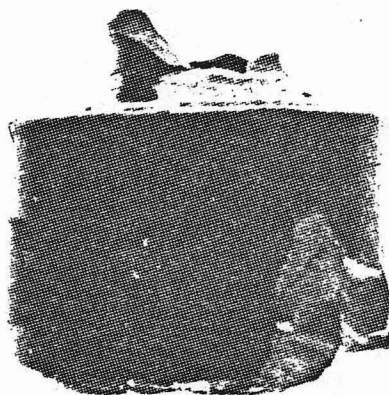


Fig. 55 Stoneware inkwell.
Actual size.

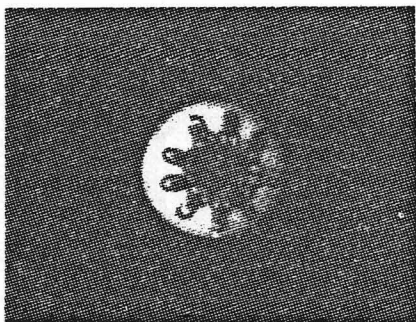


Fig. 56 Ceramic knob. Actual
size.

KNOB

A white porcelain knob (Fig. 56) decorated with a blue petal flower was recovered. This knob (Cat. No. 1-0-888), may have topped a lid.

PIPE

A portion of the bowl and stem from a white clay pipe (Fig. 58) was recovered. The pipe had a non-detachable stem, and was made of ball-clay (Herskovitz 1978:117-118). At the base of the bowl is a spur. If the pipe is oriented with the stem towards the smoker, "W WHITE" stands in relief in an impressed frame on the left side of the stem. The right side of the stem frames "SCOTLAND." William White and Sons was one of the largest and best known manufacturers of white clay pipes in Glasgow, Scotland. According to Humphrey (1969:13, 18), by 1900 clay pipes were no longer popular. As a result, the number of styles produced by White was reduced from 700 in 1867 to 10 in 1900.

STOPPERS

Two complete ceramic bottle stoppers (Fig. 59) are in the collection. Both were used in a "Lightning" closure system (discussed on page 46). One, used on a Fredericksburg beer bottle, has already been mentioned (page 46).

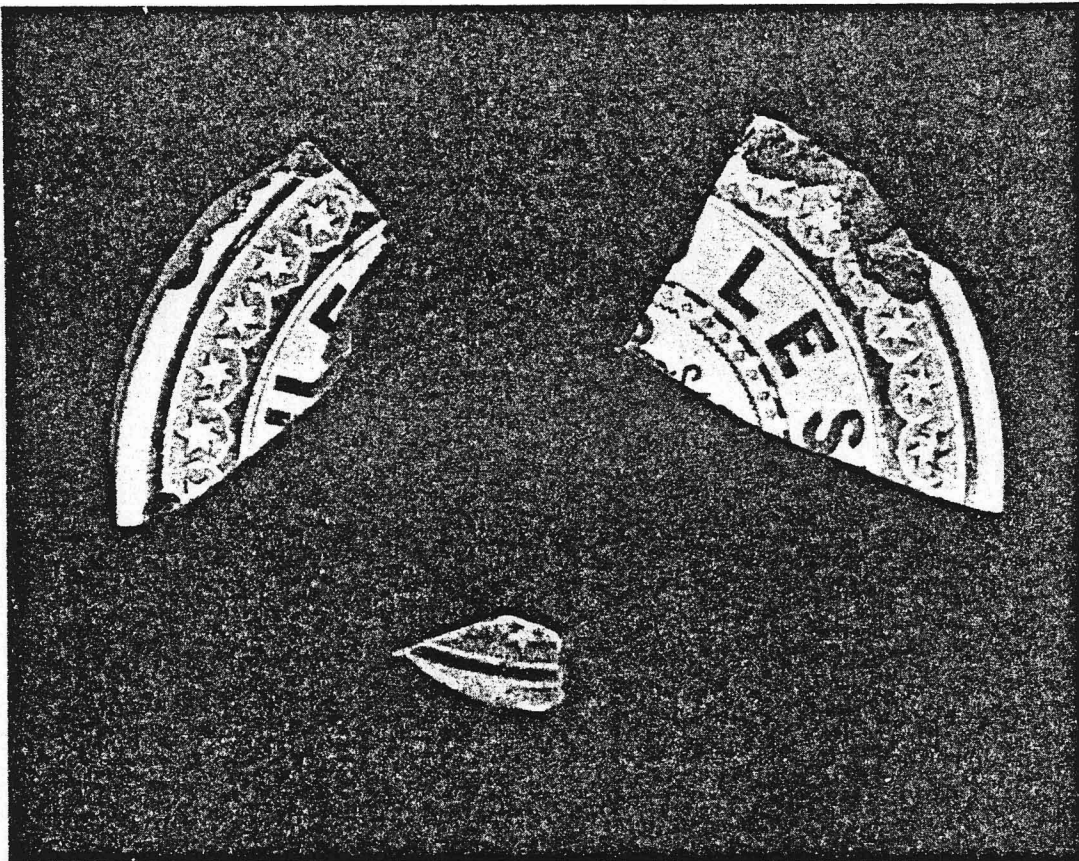


Fig. 57 Ceramic lid probably to a toothpaste or cold cream container. Actual size.

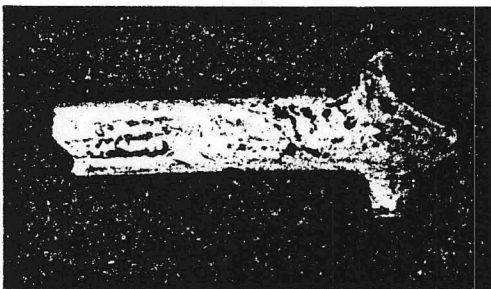


Fig. 58 White clay pipe manufactured by W. White of Glasgow, Scotland. Actual size.

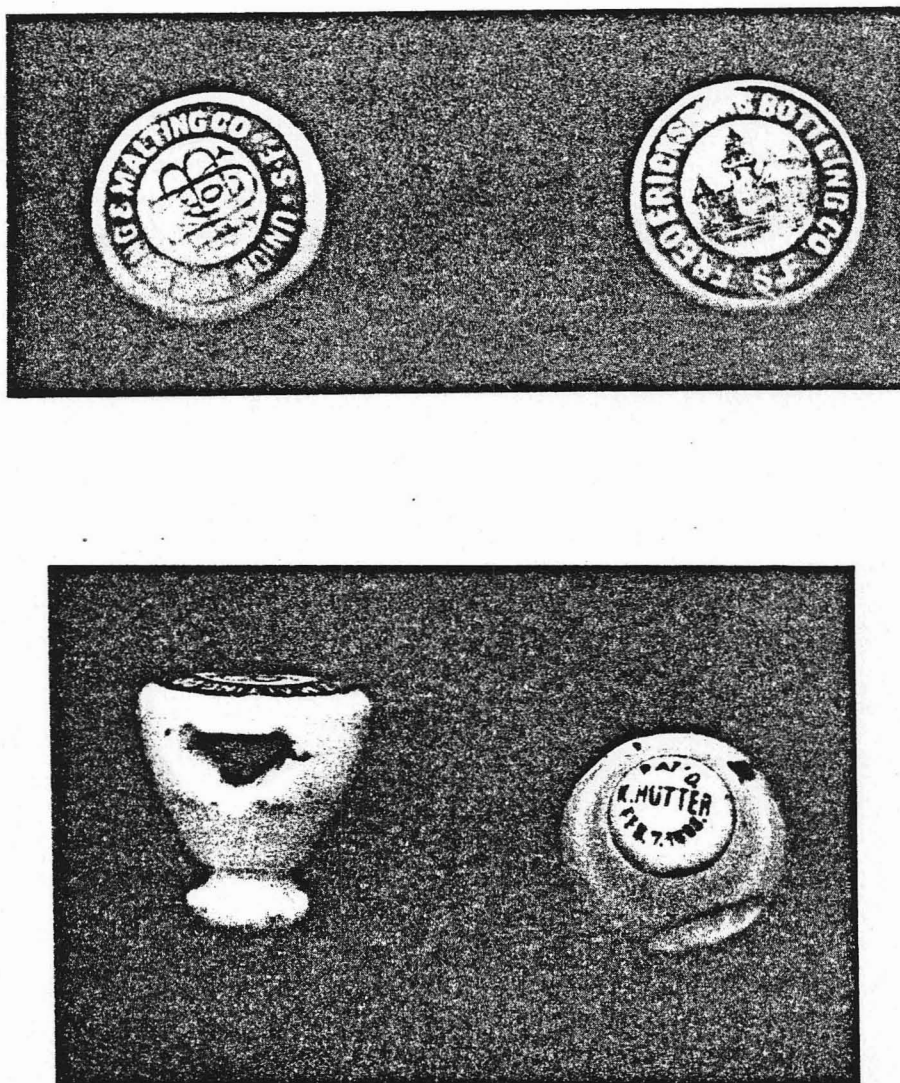


Fig. 59. Ceramic bottle stoppers. Upper row: Union Brewing & Malting Co. S. F.; Fredericksburg Bottling Co. S. F. Lower row: side view; "PAT'D./K. Hutter/FEB. 7, 1893." One and one-fourth times larger than actual size.

The second (Cat. No. 1-0-586) is also a beer bottle seal. Printed in white on a red border, circling the face of the stopper, is "UNION BREWING & MALTING CO. S.F." The monogram of this company is in the center. The 1902 San Francisco directory lists Union Brewing Co. (incorporated). In 1903 the name was changed to Union Brewery and Malting Company (H. S. Crocker Company 1902:1787, 1903:1832), and in 1904 it became Union Brewing and Malting Company, the same as that printed on the stopper. H. Thode was president, F. P. Schuster vice-president, and A. E. Kroenke secretary and treasurer. Their brewery was located on the northeast corner of 18th and Florida, their bottling works at 423-427 Valencia (H. S. Crocker Company 1904: 1847, 2058). The latest listing for this company is 1917. The address and executive members of the company were the same as in 1904 (H. S. Crocker Co. 1917:2015, 2222). The stopper dates between 1904 and 1917. Printed in black on the base of the stopper is "PAT'D./K. HUTTER/FEB. 7, 1893." This is the same patent date as that on the Fredericksburg bottle stopper. Karl Hutter, of New York City, invented this bottle stopper. It is patent No. 491,113, dated February 7, 1893 (U.S. Patent Office 1893:764, 1894:183, 474).

FURNISHINGS

Two white earthenware doorknobs (Fig. 60) have been found at the Peña Adobe. They (Cat. Nos. 1-0-1102, 1-0-1103) have a white "porcelain finish." Each has a diameter of 5.7 cm. One of these knobs is fitted with its iron spindle.

An unusually heavy ceramic base (Fig. 61) may have been a candle holder. Through the center of the base (Cat. No. 1-0-299) is a metal stem. The upper portion of the base is a shallow bowl which may have caught melted wax. The base stands 9.5 cm high.

TOYS

DOLL PARTS

Legs

Six ceramic doll parts (Fig. 62) were recovered. Five represent doll legs. Two have circular grooves for attachment to a doll body. The cloth body was stretched over the leg and threads were wound around the cloth and leg, and pressed securely into the grooves (Herskovitz 1978:119). Both legs are white, glazed porcelain. One is a solid,

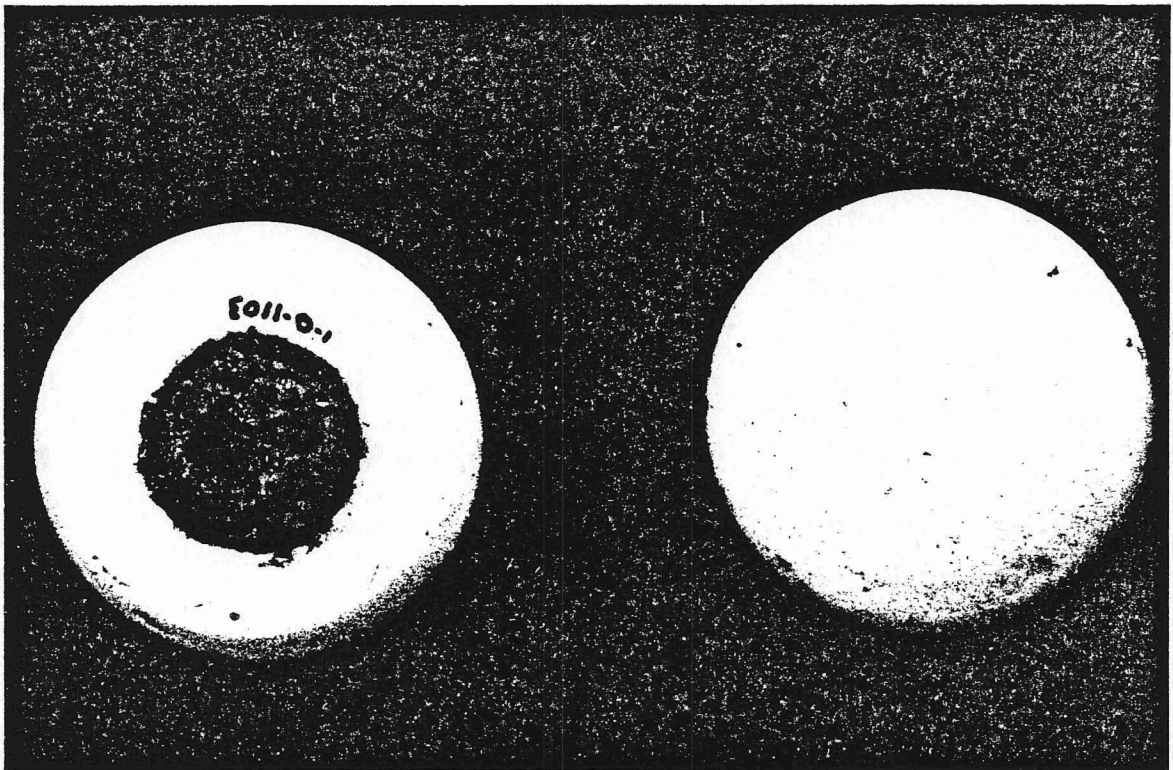


Fig. 60. "Porcelain finished" doorknobs. Actual size.

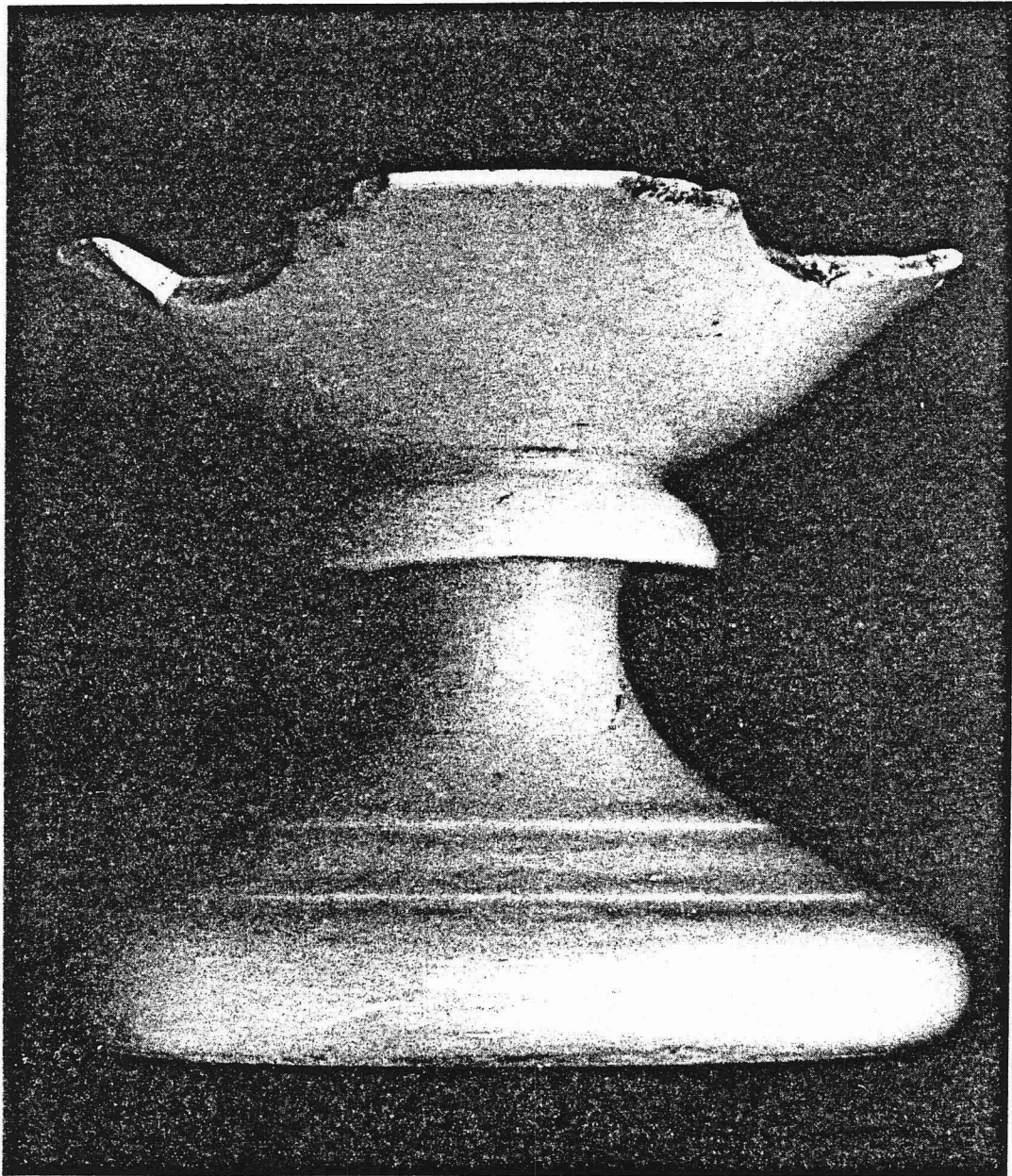


Fig. 61 Heavy ceramic base that may be a candle holder. Actual size.

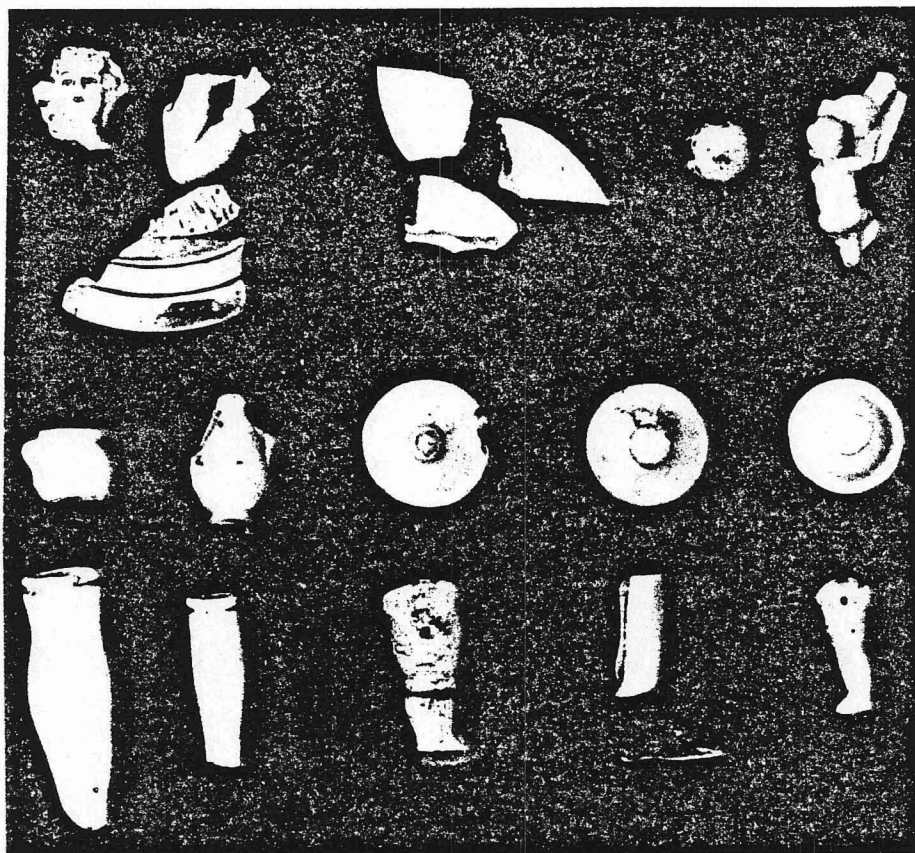


Fig. 62. Ceramic toys. Upper row: bisque porcelain figurine; porcelain saucers; clay marble; porcelain moulded baby cup handle. Second row: porcelain pitchers; porcelain dish lids. Lower row: two porcelain legs with circular grooves for attachment to a doll body; bisque articulating doll leg; hollow porcelain leg; bisque articulating leg. Actual diameter of marble 1.5 cm.

moulded leg (Cat. No. 1-0-878) while the other is hollow (Cat. No. 1-0-877).

Two porcelain bisque (unglazed) legs have small holes on their proximal ends. These specimens were articulated to a leg socket, probably by a string or wire which went through the holes (Herskovitz 1978:119). One of these solid moulded legs has a grey painted shoe (Cat. No. 1-0-879). The second leg is small and undecorated (Cat. No. 1-0-880).

The remaining leg (Cat. No. 1-0-876) is too fragmentary to determine the method of attachment. The latter is hollow and of clear-glazed porcelain. A black unglazed boot is painted on the foot and lower leg.

Head

Part of a hollow porcelain doll head (Cat. No. 1-0-886) was recovered. The doll had painted pink checks, black hair, and eyelashes.

FIGURINE

Three parts (Fig. 62), an arm (Cat. No. 1-0-620), head (Cat. No. 1-0-619), and base (Cat. No. 1-0-514) are believed

to be the remains of a single female figurine. The head and base are painted in various colors on bisque porcelain.

DISHES

The assemblage contains a variety of toy dishes (Fig. 62).

Lids

Three of the dishes are lids which range in diameter from 2.5 to 3.0 cm. Two of the lids (Cat. Nos. 1-0-882, 1-0-883) are undecorated white porcelain. The third lid (Cat. No. 1-0-881) had an overglaze decoration in pink and green.

Saucers

Remains of at least two and possibly three toy saucers were found. They (Cat. Nos. 1-0-712, 1-0-713, 1-0-885) are of undecorated white porcelain.

Pitchers

A complete child's white porcelain pitcher (Cat. No. 1-0-884) is one of the toy dishes found at the Peña Adobe site. A second pitcher (Cat. No. 1-0-889) is taller and is gilded on its otherwise white porcelain body.

Cup

A white porcelain handle (Fig. 62) decorated with a moulded baby figure may be the remains of a toy, or part of a baby's cup (Cat. No. 1-0-887).

MARBLE

The first manufactured American marbles were made of clay, and are believed to have been produced around 1884 by Samuel Dyke of Akron, Ohio (Ferretti 1973:32). One green and red, double striped, clay "commie" (Fig. 62) was recovered. The marble is light tan and has a diameter of 1.45 cm. It is glazed, which gives it a hard, shiny surface. Two unglazed pottery marbles having diameters of 1.4 cm and 2 cm were found between the wooden floor and earth floor of the Peña Adobe in unit 4N 3E (Peña Adobe Artifact Card #6).

UNIDENTIFIABLE FRAGMENTS

The specimens in this category are too fragmentary to reconstruct their original shapes. Descriptions of these pieces will be mainly limited to a review of their ware type and decoration.

Five non-diagnostic fragments (Cat. No. 1-0-579) of Rockingham pottery, from at least two vessels, are noted. The pieces are probably from an American factory, as English Rockingham was manufactured from around 1745 to 1842, prior to the Peña period. These fragments are of a coarse pottery with a brown "tortoiseshell" mottled glaze, typical characteristics of Rockingham pottery. From circa 1840 to 1900, almost every sizable pottery in the United State produced Rockingham, with East Liverpool, Ohio, being the principal center. Many household items were of this type of pottery (Boger 1971:285-286).

Three pieces (Cat. Nos. 1-0-388, 1-0-389, 1-0-390) of English-made porcelain date to approximately the 1890s (Don Geer, personal communication 1983). The fragments are ornately decorated. One sherd is printed "resent" in gold and a second fragment has a gold printed, "A". Decoration consists of overglaze gold lines in relief on a greenish-yellow and white background.

A white porcelain fragment (Cat. No. 1-0-687) of "lacework" was found. Lacework is an intricate open lattice pattern found on some plates.

Two very-thick rim fragments may be remains of large bowls or soup tureens. One of the fragments (Cat. No. 1-0-813) is late nineteenth century English ware (Don Geer,

personal communication 1983). It has an underglaze blue scroll pattern with a touch of red on a white background. The second (Cat. No. 1-0-357) is white earthenware with a white tint glaze, decorated with a red and blue floral motif.

Six white glazed rim fragments (Cat. Nos. 1-0-573, 1-0-708, 1-0-674, 1-0-561, 1-0-559, 1-0-549) bear moulded patterns. One rim sherd (Fig. 63) has a moulded grape leaf (Cat. No. 1-0-561) while another (Cat. No. 1-0-549) shows a woven pattern.

A piece of non-diagnostic English porcelain (Cat. No. 1-0-460) has a dark green and brown motif, under a light green glaze, which is reminiscent of oriental ceramics.

An unidentifiable piece of majolica (Cat. No. 1-0-506) has a brown tint tin glaze. The fragment surface is a leaf and abstract design, in relief.

Refer to appendix B for an analysis of the unidentifiable ceramic fragments in the collection.

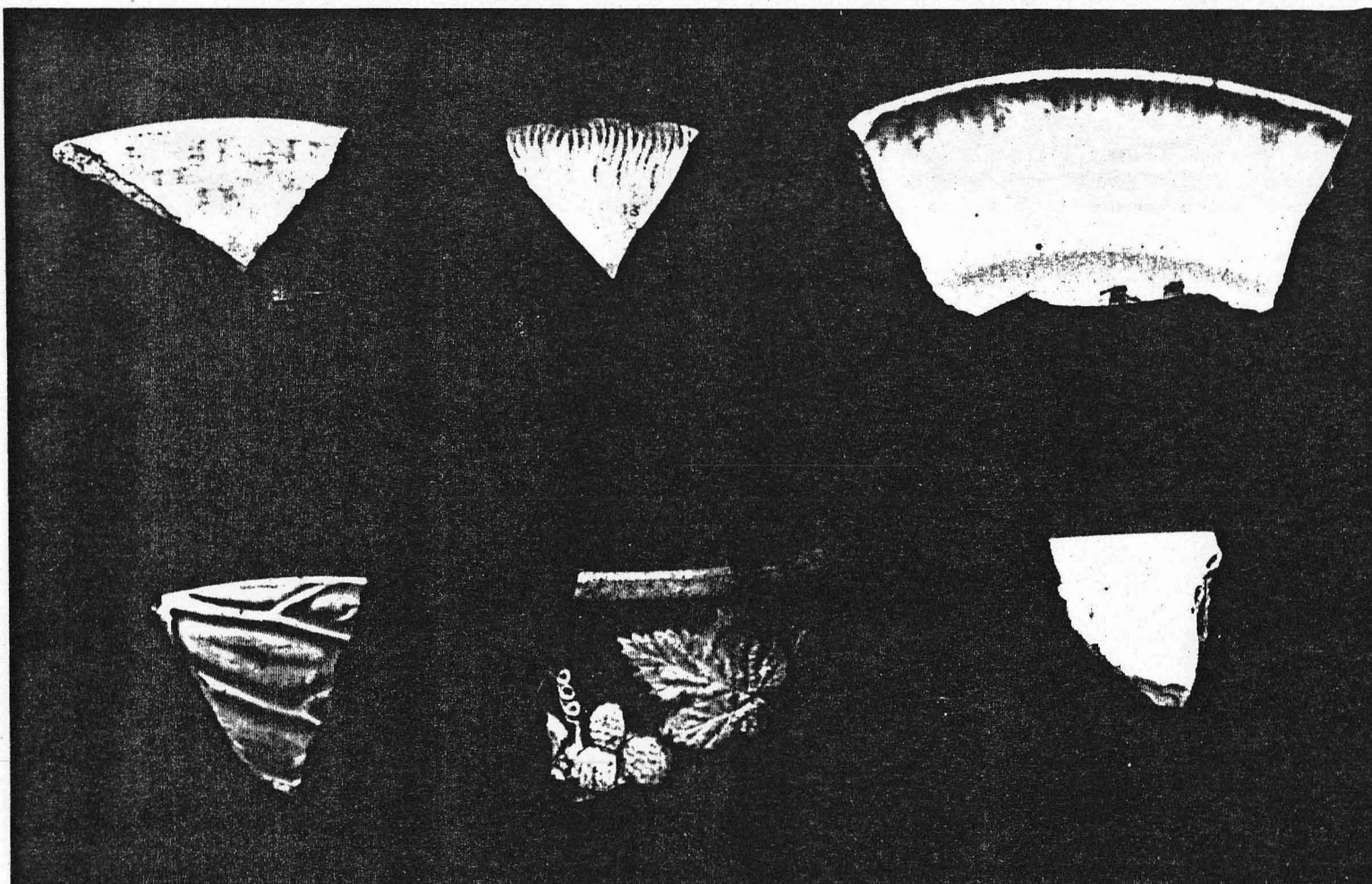


Fig. 63. Ceramic rim sherds. Upper row: basket weave pattern of a majolica plate manufactured by Griffen, Smith & Hill; rim fragment with blue "feather" border; flow blue plate rim. Lower row: green majolica fragment with a leaf motif; possibly a Japanese copy of Wedgewood; moulded grape leaf sherd. Specimens shown four-fifths actual size.

Chapter 5

ANALYSIS OF LEATHER ARTIFACTS FROM THE PEÑA ADOBE

Remains of a harness, bridle, and coiled reins were found by Stern Paulson (personal communication 1983) partially buried in the dirt floor where the Peña barn stood. They are stored in the adobe attic, except for the reins, which disintegrated.

HARNESS

The harness parts that remain are: crupper (goes under horse's tail to keep harness from sliding forward), part of the belly band, back pad, left hand and right hand tug (both sides have a spliced tug with an adjustable keeper to properly hold the tug into harness), two tug keepers, left hand hame, backstrap, and two straps which keep tugs from falling (they go from tug keepers to harness ring where the crupper is attached).

The metal parts on this harness are: two swivel cock-eyes (for chain extension), one chain link (baling wire added to lengthen), harness rings, harness buckles, copper harness rivets, and burs. Missing are: right hand hame, breeching, and most of belly band.

Part of a double-stitched split leather strap (Cat. No. 1-0-1206) was found on the Peña grounds. It may have been from a harness. The strap is 2.1 cm wide. It has three buckle holes.

BRIDLE

The bridle has two blinders, two harness buckles, and the strap that goes across the ears.

SHOE

A small child's shoe (Fig. 64) was found on the ground under the northern frame structure (near the center), during restoration work in 1962. This most likely dates the shoe to sometime before the 1880s. The shoe (Cat. No. 1-0-1237) is hand-made, probably having been manufactured on a wooden last. The shoe is adorned with brass eyelets. The sole and heel were secured with brass shoe tacks. A Goodyear welt was sewn onto the upper portion of the shoe before the sole was attached.

The sole of a baby's shoe (missing from the collection) was also discovered during the 1962-1965 restoration project (The Vacaville Reporter 1963b:17).

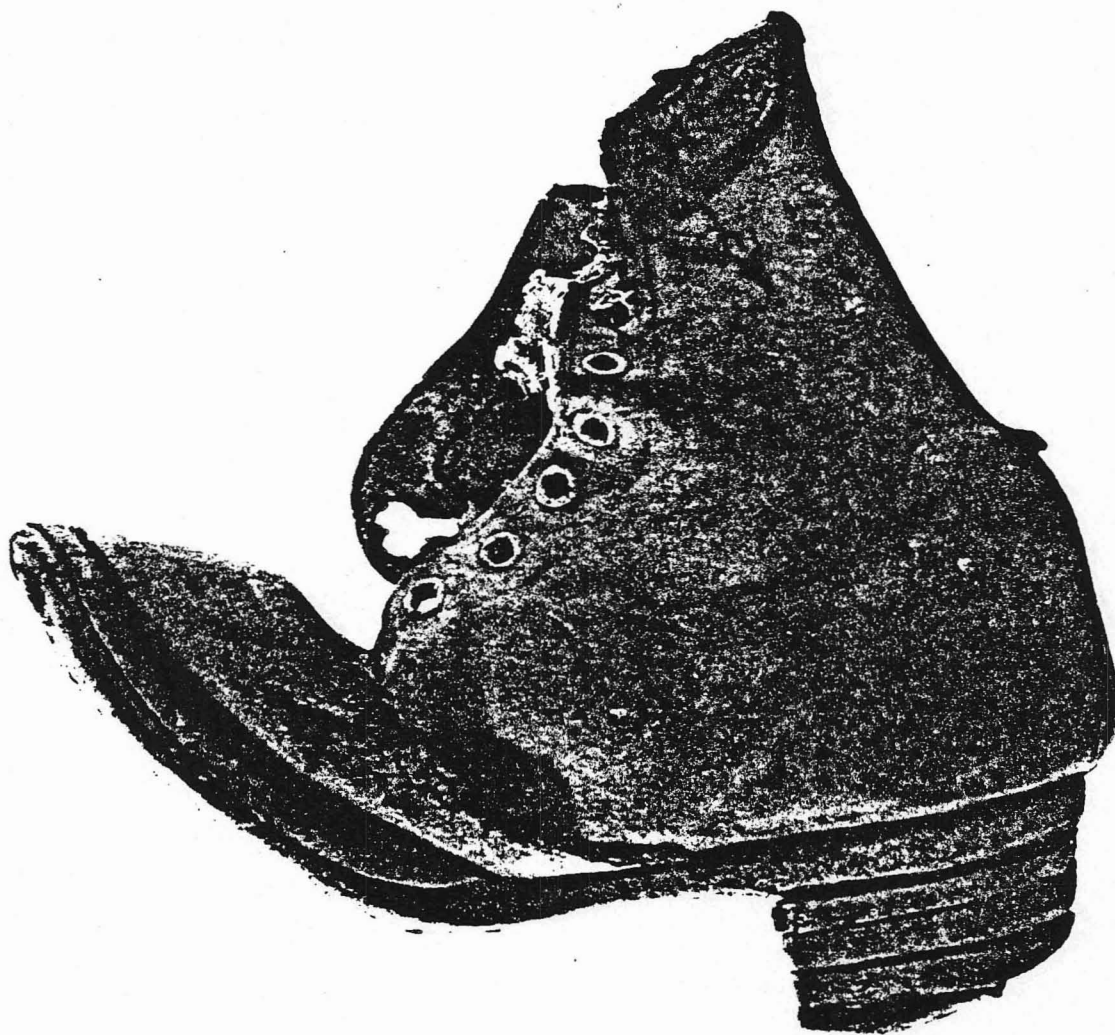


Fig. 64. Small child's leather shoe. Actual size.

Chapter 6

ANALYSIS OF METAL ARTIFACTS

FROM THE PEÑA ADOBE

Following Herskovitz (1978), metal has been divided into the following categories: ammunition, apparel, hardware and construction materials, household items, personal items, tools, and miscellaneous artifacts.

ARMS

Two percussion locks and a percussion hammer (Fig. 65) represent three weapons.

PERCUSSION LOCKS

One of these locks (Cat. No. 1-0-1468) jammed the adobe mixing machine while making bricks for the 1962-1965 restoration. The lock came from soil dug from the creek area east of the adobe home. It is a right handed back lock, most likely from a rifle. The percussion lock was invented by the Reverend Alexander John Forsyth, M.A., LL.D., who patented (#3032) his invention in England in 1807 (Winant 1959:4, 7). The copper cap was the latest and best form of percussion ignition (Greener 1910:115). The earliest known patent on a copper cap is Prelat's, July 29, 1818. By 1823

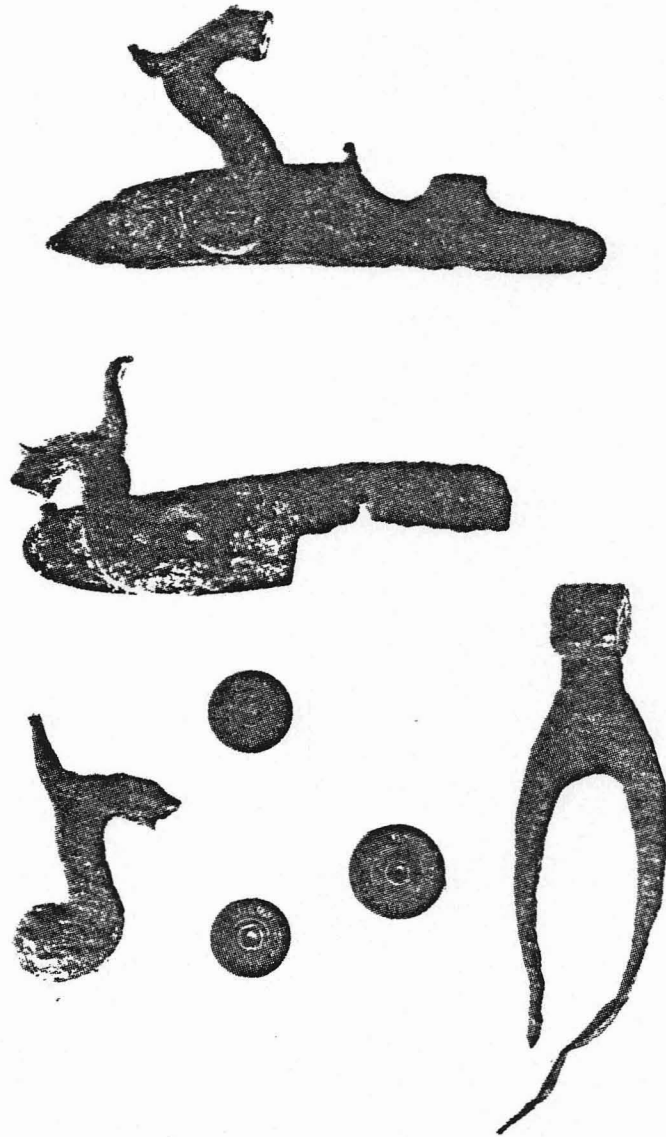


Fig. 65. Arms and Ammunition. Upper row: right handed back percussion lock. Second row: left handed front percussion lock. Lower row: right handed percussion hammer; 10, 16, and 20 gauge shotgun shell bases; bullet mould. Actual length of upper percussion lock 12.5 cm.

copper caps were becoming popular (Winant 1959:47-50). Thus, the 1820s would probably be the earliest possible date for this rifle. Based on the shape of the lock plate, it appears to be an early type of percussion lock. The silhouette of the lock plate is almost identical to that of a late (1770) flintlock lock plate shown in Arms and Armor in Colonial America 1526-1783 (Peterson 1956:34). The lock is heavy and strong; it may be from an early type of military percussion rifle. The first issue of percussion muskets to an American regiment was in 1844 (Winant 1959:6). Percussion caps began to be replaced by center-fire cartridges in the 1870s, giving us the latest date this rifle would probably have been manufactured (Winant 1959:4). The inside parts that remain on this lock are: main spring, hammer screw, tumbler screw, tumbler, sear spring, part of the sear and bridle (Peterson 1956:24). The rifle used the cap-lock system of ignition (Winant 1959:33).

The second percussion lock (Cat. No. 1-0-1453) is probably from a double barrel shotgun, although it may have been from a light rifle. It is a left handed front lock. The inside parts are badly corroded and the sear is bent.

PERCUSSION HAMMER

All that remains of the third weapon in the Peña collection is a right-handed hammer (Cat. No. 1-0-1469).

AMMUNITION

Included in this category are ten metal rifle cartridges and five shotgun shells.

CARTRIDGES

.22 Caliber

Three types of .22 caliber cartridges were identified. Two specimens are .22 "short," four are "long rifle," and two are ".22 special." Various headstamps are displayed on these cartridges.

.22 Caliber Short. One .22 caliber short cartridge (Cat. No. 1-0-1314) bears a "U" headstamp, symbol of the Union Metallic Cartridge Company of Bridgeport, Connecticut. The company was formed in 1867 and manufactured shells and cartridges under the U. M. C. trademark until 1910 when it merged with the Remington Arms Company (Karr and Karr 1960:7). The manufacturer of another .22 caliber short (Cat. No. 2-1-111) can not be determined. Both are rim-fires.

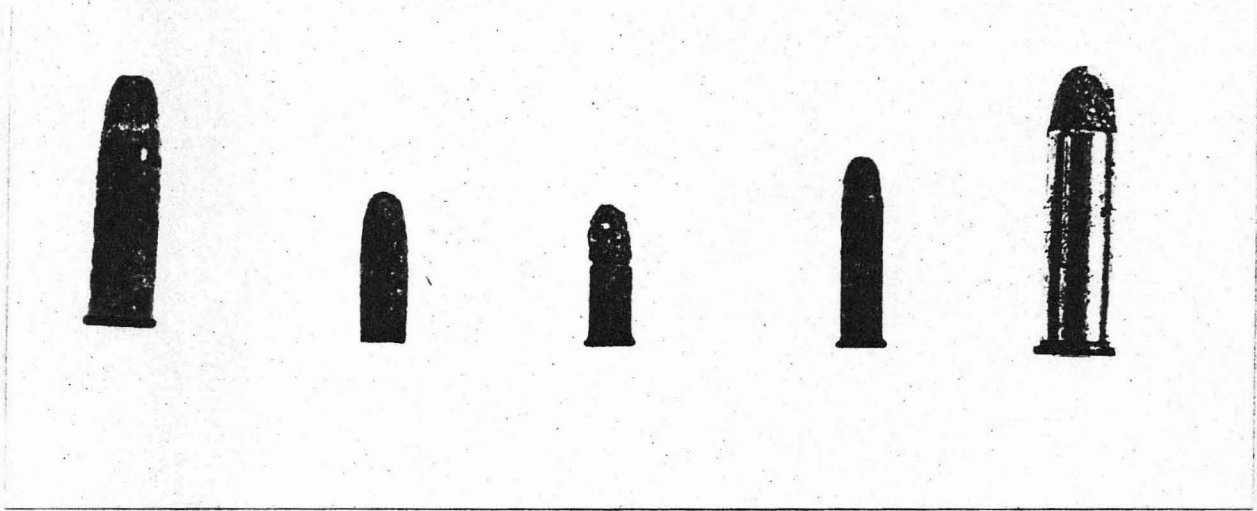


Fig. 66. Unfired cartridges and a projectile. .38 caliber cartridge; .22 caliber projectile; .22 caliber short cartridge; .22 caliber long rifle cartridge; .44 caliber cartridge. All actual size.

The one unfired .22 caliber short (Fig. 66) was manufactured by the Peters Cartridge Company (Logan 1959:190). It (Cat. No. 1-0-1462) bears the headstamp "P". The .22 caliber short was originally developed by Daniel Wesson, in 1857, for the Smith & Wesson First Model revolver (Logan 1959:63-64).

.22 Caliber Long or Long Rifle. Three cartridges (Cat. Nos. 1-0-1315, 1-0-1845, 2-1-26) have the headstamp "HI/U/SPEED" (Union Metallic Cartridge Company). Another casing has an "A" headstamp (Cat. No. 1-0-1313) which probably stands for the American Eagle Cartridge Company (Logan 1959:189). All are rimfires. The unfired .22 caliber long rifle cartridge (Fig. 66) has a diamond stamp (Cat. No. 1-

0-1459). The .22 long was developed as early as 1871 as a black powder revolver load (Herskovitz 1978:47).

.22 Caliber Special. The two (Cat. Nos. 1-0-1846, 1-0-1847) rimfire cartridges in this category have "H" headstamps. This was the trademark of the Winchester Repeating Arms Company (Logan 1959:190).

.32 Caliber

"REM-UMC/32 COLT NP" is the headstamp on a center fire cartridge (Cat. No. 1-0-1465). This unfired .32 caliber cartridge was manufactured by the Remington Union Metallic Cartridge company and was made for the Colt pistol (Logan 1959:190, 193).

.38 Caliber

The fired cartridge (Cat. No. 1-0-1857) in this category has the headstamp "W. R. A. Co./38 56 W. C. F." It was manufactured by the Winchester Repeating Arms Company, and is a .38-56 Winchester center fire. This cartridge, developed for Winchester rifles, was first loaded in 1887 with black "smokeless" powder (Williamson 1952:452). The .38-56 cartridge also fit the Marlin rifle (Logan 1959:192). One unfired cartridge (Cat. No. 1-0-1464), manufactured by the Peters Cartridge Company, is designed for a .38 Smith

and Wesson Special (Logan 1959:127, 190). It is a center fire type. The Winchester Repeating Arms Company produced the second centerfire cartridge (Fig. 66) for a .38 caliber Smith and Wesson handgun (Logan 1959: 191). It (Cat. No. 1-0-1837) bears the headstamp "W. R. A. CO./ .38 S. & W." Smith and Wesson introduced this cartridge around 1877 for their hinged-frame revolvers (Herskovitz 1978:49).

.44 Caliber

The three .44 caliber cartridges are of two types. One (Fig. 66) was manufactured by Western for the Smith and Wesson special. It (Cat. No. 1-0-1843) is a centerfire, and bears the headstamp "WESTERN/.44 S. & W. SP'[" The two remaining cartridges bear "H" headstamps. This cartridge was developed by B. Tyler Henry (Logan 1959:68). One of these (Cat. No. 1-0-1855) was fired in a Henry rifle, which has a distinctive firing pin to reduce the possibility of misfires. It leaves two marks on the rim of the cartridge. The second Henry cartridge (Cat. No. 1-0-1854) has a single rim impression, indicating it was not fired in a Henry rifle. The Henry cartridge was manufactured from 1860-1861 until 1934 (Herskovitz 1978:49). It was produced by the New Haven Arms Company, which was succeeded by the Winchester Repeating Arms Company (Williamson 1952:28-31).

.50 Caliber

An early, unmarked, centerfire cartridge (Cat. No. 1-0-1856) is .50 caliber.

SHOTGUN SHELLS

Twelve shotgun shell bases were catalogued. Shells were found in gauges 10, 12, 16, 20, and 410. All of these shotgun shells were paper-cased, except one, an all-brass case.

10 Gauge

One 10 gauge shell (Fig. 65) is the low-base type made of yellow brass. It (Cat. No. 1-0-1233) is stamped "1901/No 10/NEW RIVAL." The only all-brass shell case (Cat. No. 1-0-1844) is marked, "WINCHESTER/NO 10" (Winchester Repeating Arms Company).

12 Gauge

A total of six 12 gauge shotgun shell fragments were obtained. All are low-base, with the exception of one standard base, stamped "U.M.C.CO./No 12/BLACKCLUB" (Cat. No. 1-0-1842). This shell was produced by the Union Metallic Cartridge Company before it merged with Remington in 1910.

One yellow brass shell (Cat. No. 1-0-1234) has the headstamp "W. R. A. Co./No 12/STAR" (Winchester Repeating Arms Company). Another shell base (Cat. No. 1-0-1231) was manufactured by the Remington Union Metallic Cartridge Company which dates it between 1910 and 1920. In 1920 the company was reorganized and returned to the name Remington Arms Company (Karr and Karr 1960:7). It bears the headstamp "REM-UMC/No 12/ECONOMY". "NEW RIVAL/1901/No 12/" (Cat. No. 1-0-1841) is a headstamp for the Winchester Repeating Arms Company (Logan 1959:191). The shell headstamped "E.B./No 12/LONDON" (Cat. No. 1-0-1838), was manufactured by Eley Brothers of England (Logan 1959:190). The last 12 gauge shell (Cat. No. 1-0-1839) is stamped "WESTERN/No 12/FIELD" (Western Cartridge Company).

16 Gauge

A 16 gauge shell (Cat. No. 1-0-1232) marked "1901/No 16/REPEATER" was produced by the Winchester Repeating Arms Company (Herskovitz 1978:52). A "WESTERN/No 16/FIELD" shell was also found (Cat. No. 1-0-1840). It is a product of the Western Cartridge Company (Logan 1959:191).

20 Gauge

The only 20 gauge shell (Cat. No. 1-0-1488) bears the headstamp "FEDERAL/No 20/HI-POWER". It was produced by the Federal Cartridge Company (Logan 1959:190).

.410 Gauge

The one .410 gauge high-base shell is stamped "REMINGTON/EXPRESS" (Cat. No. 1-0-1853).

BULLET

A projectile without a cartridge case (Fig. 66) probably fits a .22 caliber rimfire Winchester special (Cat. No. 1-0-1463).

BULLET MOULD

The cast steel bullet mould (Fig. 65) in the collection produced about a .45 caliber ball (Cat. No. 1-0-1452). On each handle is a projection near the hinge, called a sprue trimmer. A plier action removed the lead sprue left on each bullet after casting (Roberts 1952:44).

APPAREL

FASTENING DEVICES

Buckles

A total of six apparel buckles (Fig. 67) were recovered from the Peña Adobe grounds. Two small brass buckles (Cat. Nos. 1-0-1201, 1-0-1210) were used on either vests or trousers. One of these buckles is marked "1867," presumably the year it was patented. A steel buckle (Cat. No. 1-0-1189), having a width of 3.5 cm, is a type commonly used on pants. A man's ornate dress suspender buckle (Cat. No. 1-0-1832) is silver-plated brass. Another buckle (Cat. No. 1-0-1193) has two tongues, making it probably a lady's belt buckle. The tongues and perimeter of the buckle are brass and the bar is steel. It appears to be hand-made (Merle Curtice, personal communication 1983). Half of a lady's fancy belt buckle (Cat. No. 1-0-1835) was found. The buckle is brass or bronze, except for a steel hook which has rusted. It may have been gold-plated.

Cuff Links

Three metal cuff links are in the collection. One brass cuff link (Fig. 80) is ornamented with a mother-of-pearl inlay (Cat. No. 1-0-1830). The inlay has a diameter

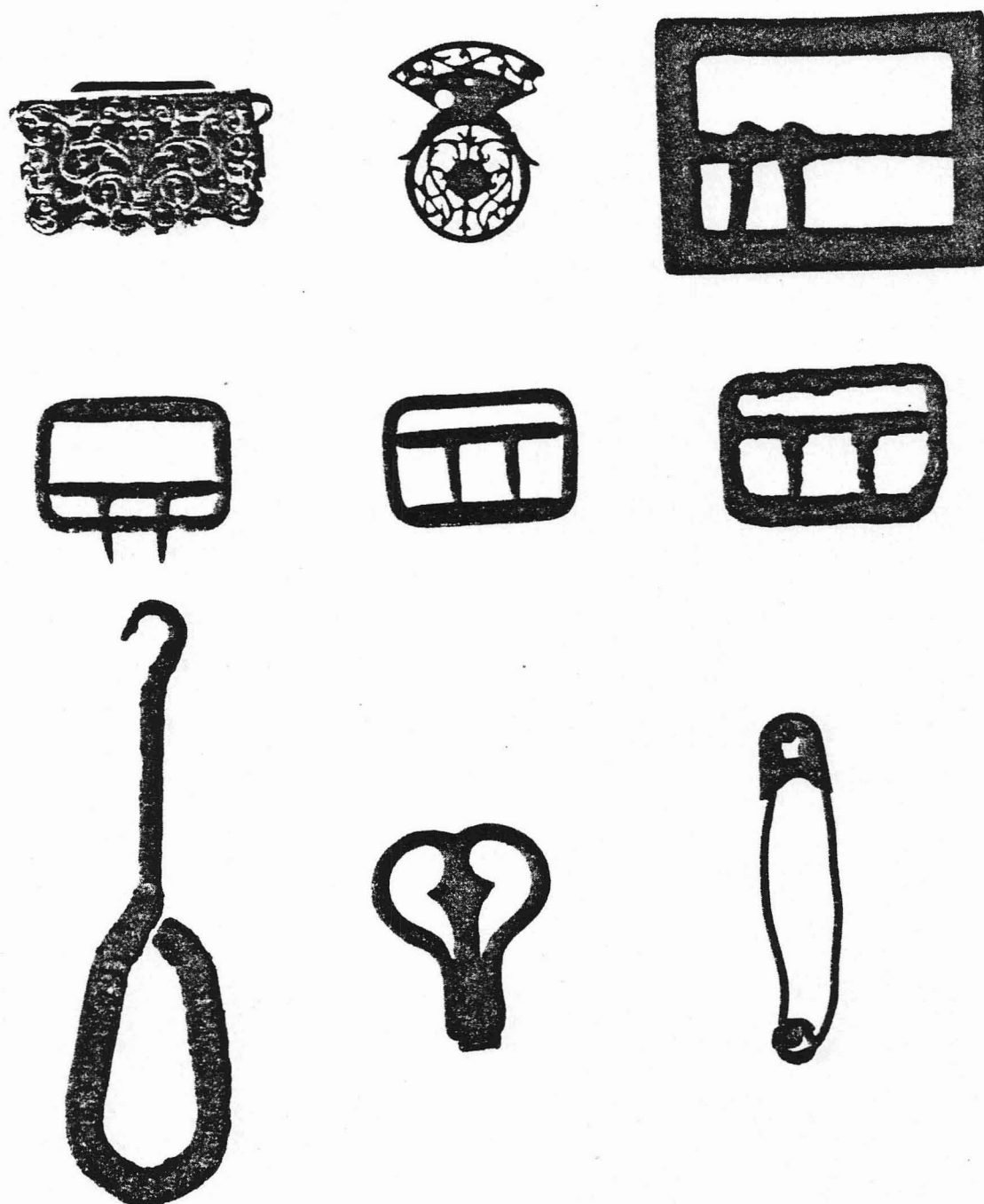


Fig. 67. Metal apparel artifacts. Upper row: man's suspender buckle; woman's belt buckle; probably a lady's belt buckle. Second row: buckles. Lower row: buttonhook; brass snap; brass safety pin. All actual size.

of 1.2 cm. The outside piece of another cuff link, or collar button, (Cat. No. 1-0-1814) is gold-dipped brass. Its diameter is 1.4 cm. The third cuff link is gold-plated brass (Cat. No. 1-0-1820), and is decorated with an impressed rose pattern. The outside face has a diameter of 1.95 cm.

Snaps

Three metal snaps were found on the Peña grounds. One snap (Fig. 67) made from brass was probably sewn to a lady's garment (Cat. No. 1-0-1215). "SCOVILL" is pressed on one side and "GRIPPER/GRIPPER" on the other side of a snap 1.2 cm in diameter (Cat. No. 1-0-1866). Waterbury, Connecticut is the location for the Scovill Manufacturing Company, which has made buttons since 1802. In 1821 the name of the firm was Leavenworth, Hayden and Scovill. The owners then were Frederick Leavenworth, David Hayden, and James Mitchell Lamson Scovill. In 1827 the name changed to J. M. L. & W. H. Scovill (William H.). From 1840 to 1850 the firm was known as Scovills and Company, and from 1850 to the present it has had the name Scovill Manufacturing Company (Luscomb 1967: 174-175; Johnson 1948:218). A smaller snap with a diameter of 0.95 cm (Cat. No. 1-0-1867) is marked "PAT. 11/6/MADE IN FRANCE 68." One side of a brass snap 1.25 cm in diameter (Cat. No. 1-0-1869) was also found.

Safety Pin

One brass safety pin (Fig. 67) measures 5.4 cm long (Cat. No. 1-0-1179).

Miscellaneous

A metal shoe eyelet (Cat. No. 1-0-1683) was recovered.

BUTTONHOOK

An 8.9-cm long steel buttonhook (Fig. 67) appears to be inscribed "J WAITER CO. LOS GATOS." Buttonhooks were used to button shoes. A broken buttonhook was found between the wooden floor and earth floor (6E 10N) of the Peña Adobe addition during restoration (Peña Adobe Artifact Card #16).

BUTTONS

A total of 26 metal buttons (Figs. 68 and 69) were recovered. The diameter and thickness of these buttons is tabulated in Appendix C.

Pants Button

An iron pants button (Cat. No. 1-0-1222) that has a steel shank may be from the Peña period. Inscription on the button is illegible due to oxidation.

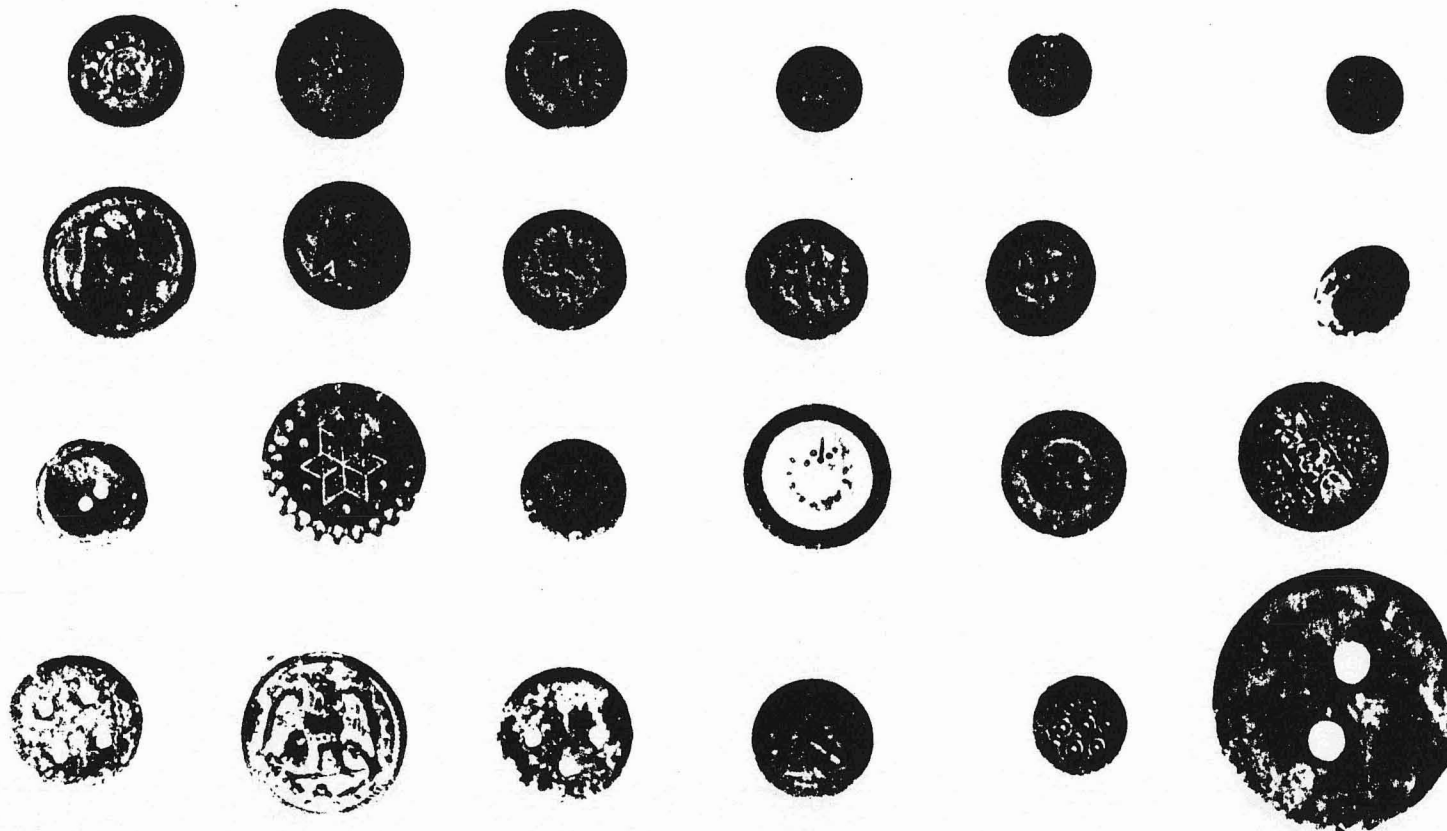


Fig. 68. Metal buttons and cuff link. Upper row: button marked "B. & BURNHAM EXTRA"; "concho type" piece; button stamped "*ROBINSONS/ *TREBLE/JONES & CO*"; three "colonial type" buttons. Second row: acorn button; button with bust of an Egyptian Pharaoh; three-piece buttons. Third row: two-hole sew-through; three-piece button; four-piece beetle button; four-hole sew-through; cuff-link. Lower row: two four-hole sew-throughs; two-piece button with double anchors; three-piece metal and glass button; concho. All actual size.

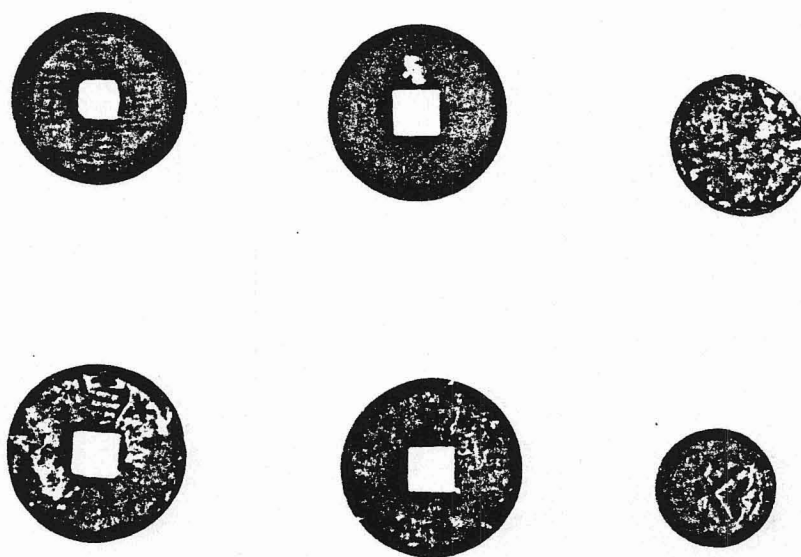


Fig. 69. Four Chinese coins and two metal buttons, one with double anchors in relief. Actual size.

Sew-Througths

Three-Hole. A simple three-hole sew-through metal button with a geometric design (Cat. No. 1-0-1682) was found.

Four-Hole. Two plain, metal four-hole sew-througths (Cat. Nos. 1-0-1821, 1-0-1823) were found. A pewter four-hole sew-through (Cat. No. 1-0-1689) is either a pants button, a cloth button blank, or a button reinforcement. Another four-hole sew-through (Cat. No. 1-0-1819) is probably a pants button. It is two-piece with a brass front and a steel back.

Miscellaneous Button Types

Colonials. "Colonial" is a name given to small simple metal buttons made during the eighteenth century, or earlier (Brown 1968:255). Three "colonial types" were found at the Peña Adobe. One is plain (Cat. No. 1-0-1808); another has a criss-cross line pattern (Cat. No. 1-0-1807); the last has a pressed flower (Cat. No. 1-0-1806). These small buttons have looped shanks and range in size from 1.10 cm to 1.15 cm in diameter.

Two-Piece. A two-piece all brass button (Cat. No. 1-0-1824) is ornamented with double anchors in relief that cross at right angles. This button does not have the qual-

ity of construction characteristic of a uniform button. Anchors were common motifs on children's clothing and on "yachting," "sailor," or sports garments for adults (Brown 1968:113, 264). It has a "cut-out shank."

Three-Piece. A pair of buttons (Cat. Nos. 1-0-1811, 1-0-1812) display a floral pattern on brass fronts, which are crimped over iron backs. These buttons were probably attached with shanks. The back is missing on a yellow brass button (Cat. No. 1-0-1817) that has a five-pointed star motif. A six-pointed stippled star surrounded with six dots is pressed on a copper face (Cat. No. 1-0-1816). The edge of this button is ornamented with a "lace" design. This button has a steel back and brass loop shank. Another three-piece metal button in the collection has a steel back and loop shank (Cat. No. 1-0-1813). Fruit, leaves, and stems stand in relief on the brass front.

Overall Buttons: Four metal overall buttons (Cat. Nos. 1-0-1526, 1-0-1535, 1-0-1513, 1-0-1534) were examined. Because overall buttons were made for men's work clothes, their decorations are more a form of advertisement than ornamentation (Brown 1968:142-143). Three of these buttons are marked "HEAD/LIGHT." Head light was the trade name of a work clothing manufacturer (Hughes and Lester 1981:686). The fourth button reads "BIG SMITH/*." These buttons have

yellow brass fronts, iron backs, and appear to have been attached with steel shanks. They range in size from 1.5 to 1.7 cm.

Four-Piece. An interesting button displays a white glass beetle in relief on the front, and has a brass collet and a steel back (shank is missing) (Cat. No. 1-0-1818). It has a glass design on its front which consists of six double circles encircling one double circle. This geometric design has a floral effect. The beetle was originally colored. Spots of blue and black color remain. An "acorn button" (Cat. No. 1-0-1809) had a pressed brass front and collet, and a steel back (shank is missing). All that remains of the acorn is its outline on the button face. The acorn may have been made of glass, or other material. The bust of an Egyptian Pharaoh is in relief on a two-piece brass front, steel back, and pin steel shanked button (Cat. No. 1-0-1810). Another four-piece button (Cat. No. 1-0-1825) is composed of various materials: glass front, brass collet, steel back, and brass loop shank. The glass design consists of six double circles encircling one double circle, giving a floral effect.

Buttons With Manufacturers' Marks

Robinsons, Jones & Co. "*ROBINSONS/*TREBLE/JONES & CO*." is stamped into the back of a one-piece solid brass early military type shanked button (Cat. No. 1-0-1805). The manufacturers of this button were Richard and Willard Robinson, William H. Jones, and H. M. Draper of Attleboro, Massachusetts. They established their business in May of 1831. Their brass buttons were considered superior to any on the market in beauty, finish, and durability. They received three medals for their quality craftsmanship from the American Institute of New York (Luscomb 1967:168-169). This trademark was used until 1836 (Johnson 1948:218). Treble means that this button was coated three times, probably in gold lustre.

Benedict & Burnham. "B. & BURNHAM EXTRA" is the trademark on a three piece (shank is missing) heavy pressed brass Navy button (Cat. No. 1-0-1803). Benedict & Burnham operated between 1834 and 1843, and then continued as Benedict & Burnham Manufacturing Company until 1849 (Johnson 1948:216). An anchor and thirteen stars adorn this button.

R L & F. One "Paris Back" (Cat. No. 1-0-1866), a name given to any type of button that displays the word "Paris" on the back (Peacock 1972:98; Brown 1968:169), was found. This was originally a four-piece button (shank is missing).

The top of this uncommon button is brown opaque glass. It has a brass collet and back. The back is stamped "R L & F/PARIS."

COINAGE

U.S. CURRENCY

An 1863 S dime was found in unit 12N 5E (Clifford Curtice 1962c).

FOREIGN CURRENCY

Four Chinese coins (Fig. 69) having the characteristic square hole center were retrieved. Three of the coins were punched out and their design pressed, and another one (Cat. No. 1-0-1687) was cast. One coin bears the inscription "1736-1795/currency/King in China Gían Lóng." The remaining three (Cat. Nos. 1-0-1681, 1-0-1685, 1-0-1686) read "1875-1908/currency/King in China Gūang Xu." One (Cat. No. 1-0-1681) of these Chinese coins is brass, the others are brass or bronze.

FARM ITEMS

This category includes items used in animal husbandry as well as in horticulture.

ANIMAL HUSBANDRY

Animal husbandry is represented by articles used in fencing and by cattle brands. Two fence staples (Cat. Nos. 2-1-14, 2-1-42), and a wire barb (Cat. No. 2-2-57) were found in units east of the adobe.

Cattle Brands

Two cattle brands found at the Peña Adobe, and three others belonging to the Peña family have been recorded.

Berryessa. One brand (Fig. 70) forged of steel was recovered by Newhall. It closely resembles the Miguel and Selectino Berryessa brands on record at the Napa County Courthouse as late as 1854 (Young 1971:8, Appendix J). The Berryessas occupied the Las Putas Land Grant in Monticello Valley. Inez Berryessa married Demetrio Peña, and her niece, Jovina Berryessa, married Francisco Peña. Both were sons of Juan Felipe (Young 1971:Appendix N).

Peña. A second brand (Fig. 71) was found while excavating an archaeologic unit.¹ The brand has not been identified (Young 1971:Appendix L). The three remaining brands had been acquired by Rose Peña Coombs (granddaughter of Juan Felipe), who gave them to her son. One brand (Fig. 72) has the initials "PVS," a second (Fig. 73) bears the initials

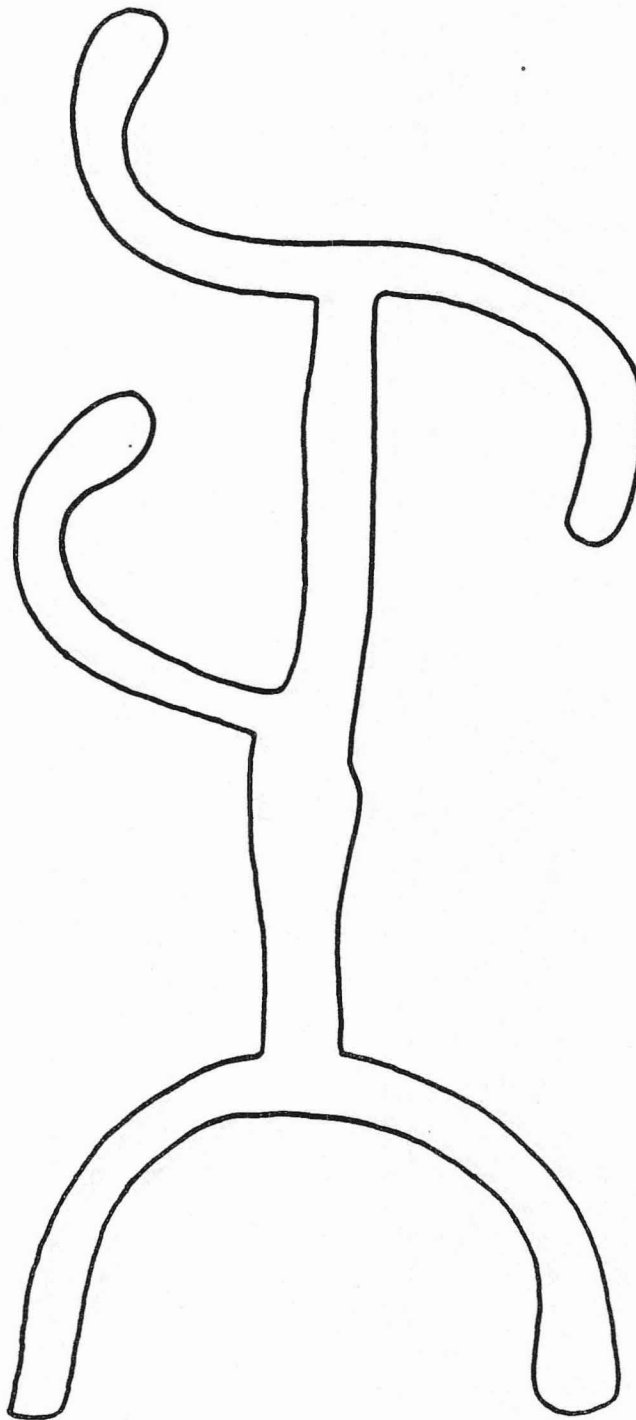


FIG. 70. Cattle brand excavated at the Peña Adobe that probably was registered to Miguel and Selectino Berryessa. Actual size.

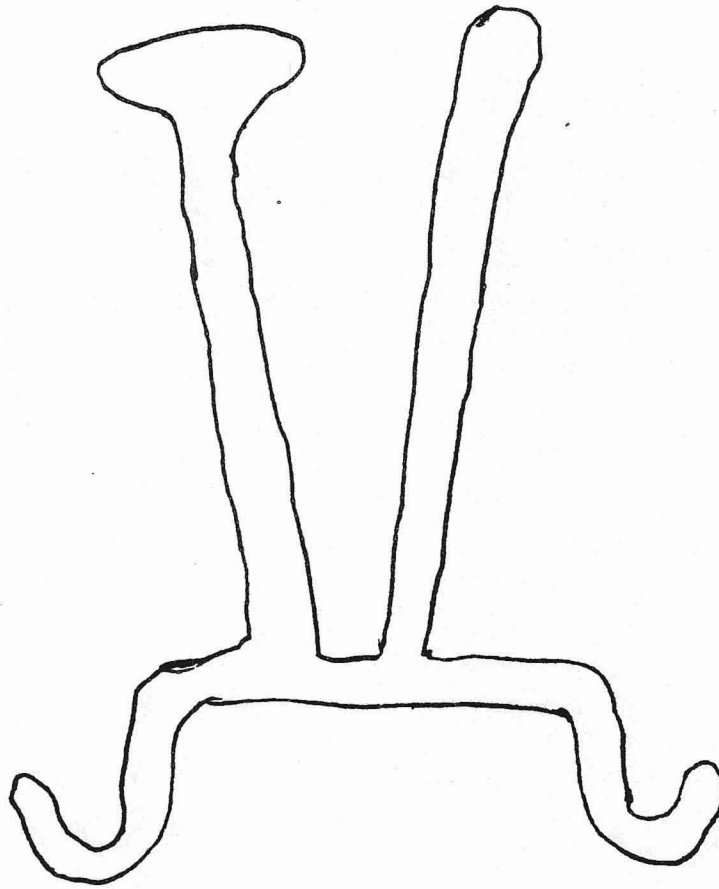


Fig. 71. Cattle brand excavated at the Peña Adobe.

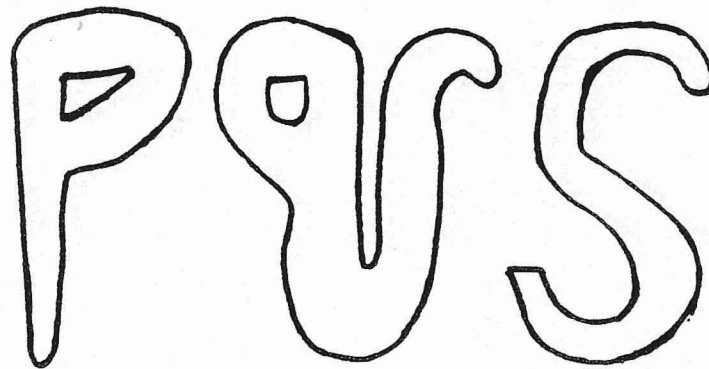


Fig. 72. Cattle brand inherited by Rose Peña Coombs.

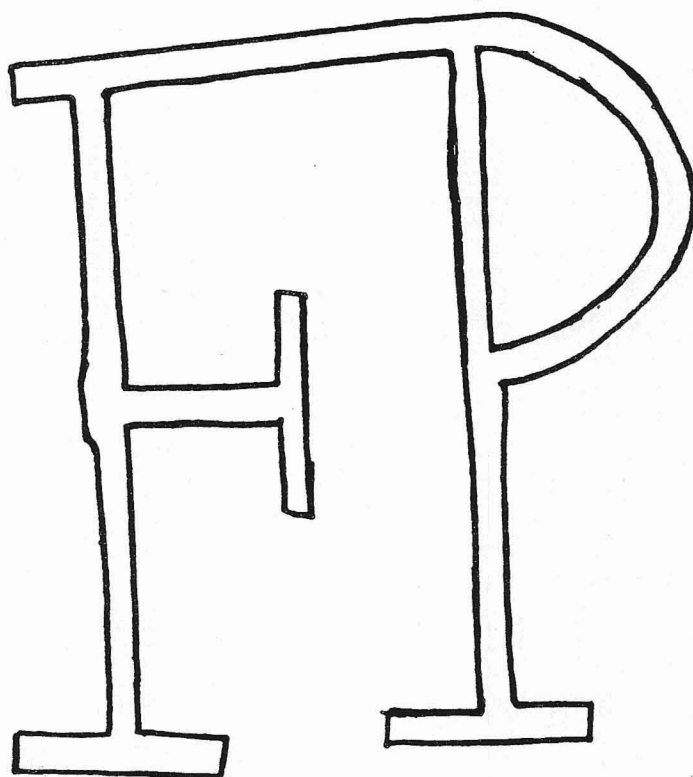


Fig. 73. Juan Felipe Peña cattle brand inherited by Rose Peña Coombs.

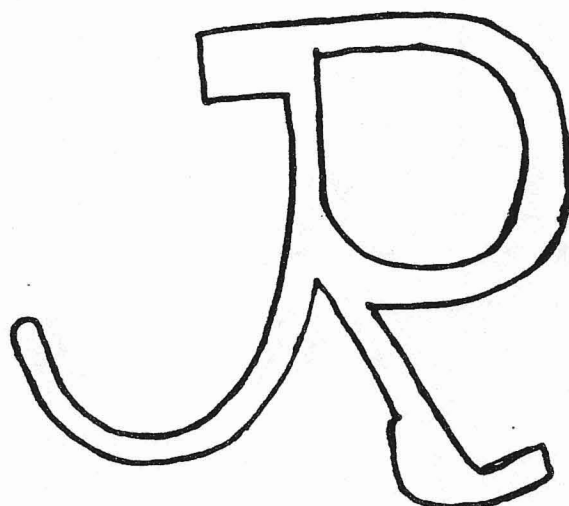


Fig. 74. Cattle brand inherited by Rose Peña Coombs that may have belonged to Juan Tapia Rivera.

"FP" for Juan Felipe Peña, and the third brand (Fig. 74), which has the initial "R" is believed to have been that of Juan Tapia Rivera,² husband of Nestora Peña (Young 1971:Appendixes K and L; Coombs 1963a).

HORTICULTURE

Evidence of horticultural activities are seen in a yellow brass stencil (Cat. No. 1-0-1172), iron baling wire (Cat. No. 2-1-104), scythe blade and garden hoes. These last two items are discussed under "Tools."

Stencil

The stencil (Fig. 75) is too bent to be totally legible. It appears to have read: "J. T. ____./To J.____.____. Co./S. F." The J. T. ____ may stand for Juan Tapia Rivera, who married Nestora Peña in 1881. Pressed into the brass on one side is: "O HOLMES & CO./423/WASH'N. ST./S. F." Samuel O. Holmes first occurs in the San Francisco directory of 1885 as a stencil cutter (W. H. L. Corran 1885:39). He worked for Christian Schenk & Co. at 423 Washington Street (Corran 1886: 623, 1392). In 1889 S. O. Holmes & Co. appears in the directory at the above address in room 9. Holmes and Company employed seal engravers, die sinkers, and stencil cutters. They advertised seals, brass

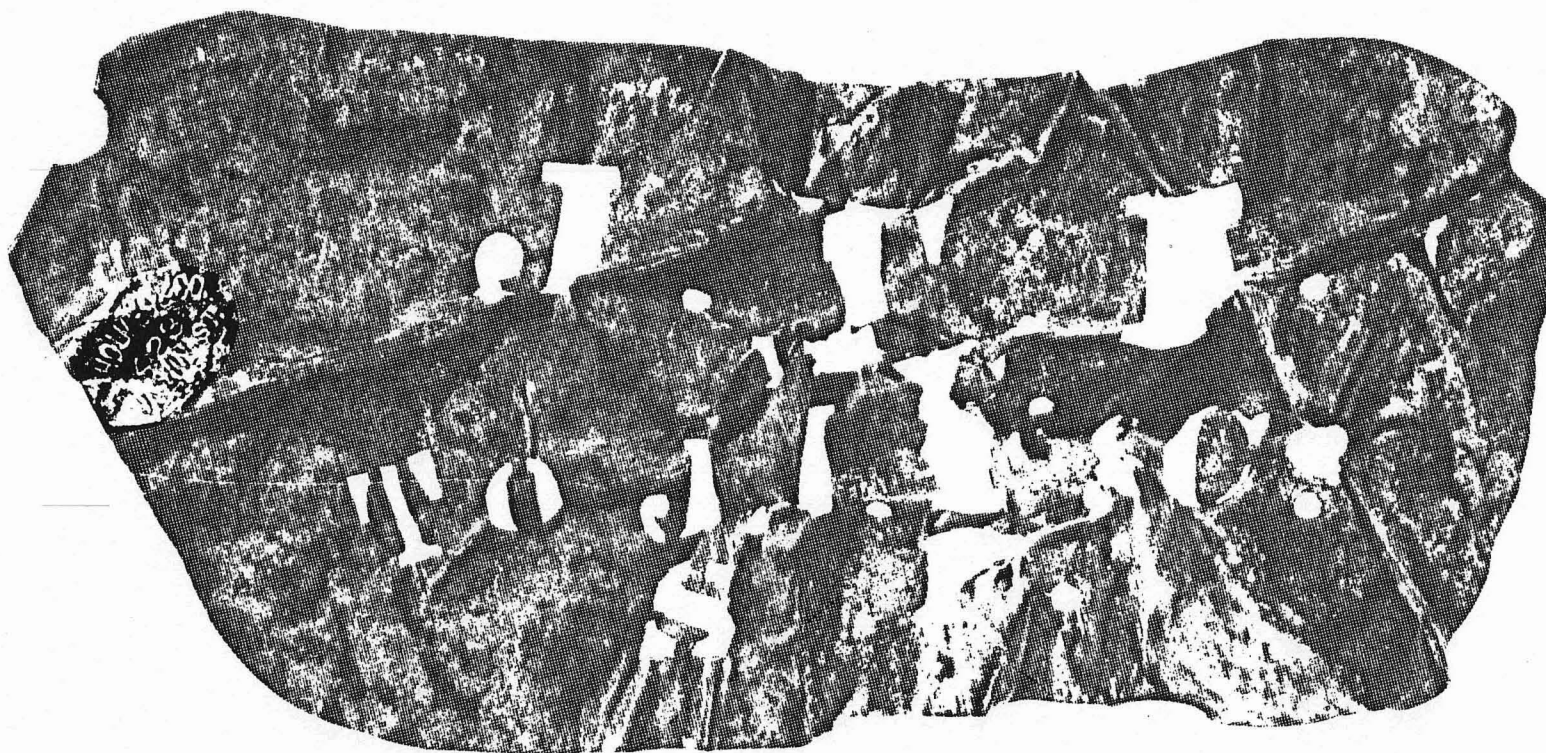


Fig. 75. Metal fruit box stencil. Note "O. HOLMES & CO./423/WASH'N ST./S.F." pressed into the left corner. Actual size.

and steel stamps, burning and box brands, and the manufacturing of stencil plates (Corran 1889:680, 1458, 1467, 1555; Wilbur 1890:655, 1581). From 1906 to 1911 S. O. Holmes & Co. does not appear in the directories, undoubtedly as a result of the 1906 earthquake. In 1912, the company is listed in the rubber stamps business at 549 Sansome (H. S. Crocker Co. 1912:853). The Peña Adobe stencil probably dates between 1889 and 1905, the period that S. O. Holmes & Company was in operation on Washington Street. This stencil is typical of those used to mark fruit boxes. A piece of yellow brass (Cat. No. 1-0-1209) appears to be the remnant of another stencil.

HARDWARE AND CONSTRUCTION MATERIALS

CONSTRUCTION HARDWARE

Nails

Both wire and square cut nails were recovered. Nelson (1980), in his discussion on nail chronology, gives the transition period from hand-wrought to cut nails as 1790 to 1830. Even by the time of the earliest occupation of the Peña Adobe (1842), cut nails were mass-produced. American wire (round) nail machinery was being perfected in the 1860s and 1870s. Steel wire would be held in gripper dies and

headed; then advanced and sheared to length. By the 1890s wire had become the dominant nail type. The presence of wire nails is primarily due to alterations made on the adobe building circa 1880.

The following table summarizes the number, size, and types of iron nails found. The size or length of the nail is given in "penny weight." The larger the penny size, the bigger the nail. Refer to Appendix D for catalogue numbers.

Table 9

NAILS

Penny (d) Size														
	2	3	4	5	6	7	8	9	10	12	16	20	Fragments	Total
Square cut common	1	1	3	1	4	8	25		12		1		12	67
Square cut finishing						2	3		1					6
Square cut shingle			3										1	4
Square cut lath													3	3
Wire*														

MISCELLANEOUS HARDWARE

Gate Hinge

A hand-wrought gate hinge was found near the Peña home during excavaton work in 1962. It has "1873" stamped on its

*Wire nails are not penny weight tabulated in Table 9 because it is impossible to segregate early wire nails from post-Peña ones.

face (Young 1962). Unfortunately, this hinge is missing from the collection.

Padlock and Keys

Padlock. A steel padlock (Fig. 76) was found during the restoration period (1962-1965). The lock (Cat. No. 1-0-1466) has a brass keyhole escutcheon and accepted a tubular key. The padlock measures 8.3 cm in length; 5.9 cm in width, and has a 0.9 cm diameter locking bolt.

Keys. One complete (Cat. No. 1-0-1174) and three fragmentary iron "skeleton" keys (Fig. 76) complement the collection (Cat. Nos. 1-0-1173, 1-0-1308, 1-0-1350).

HOUSEHOLD ITEMS

KITCHEN AND TABLE WARES

Beer Stein

A pewter lid hinge (Fig. 80) is all that remains of a beer (Cat. No. 1-0-1226) stein.

Cookie Cutter

A square cookie cutter was found under the wooden floor (3N 6E) of the adobe (Peña Adobe Artifact Card #21).

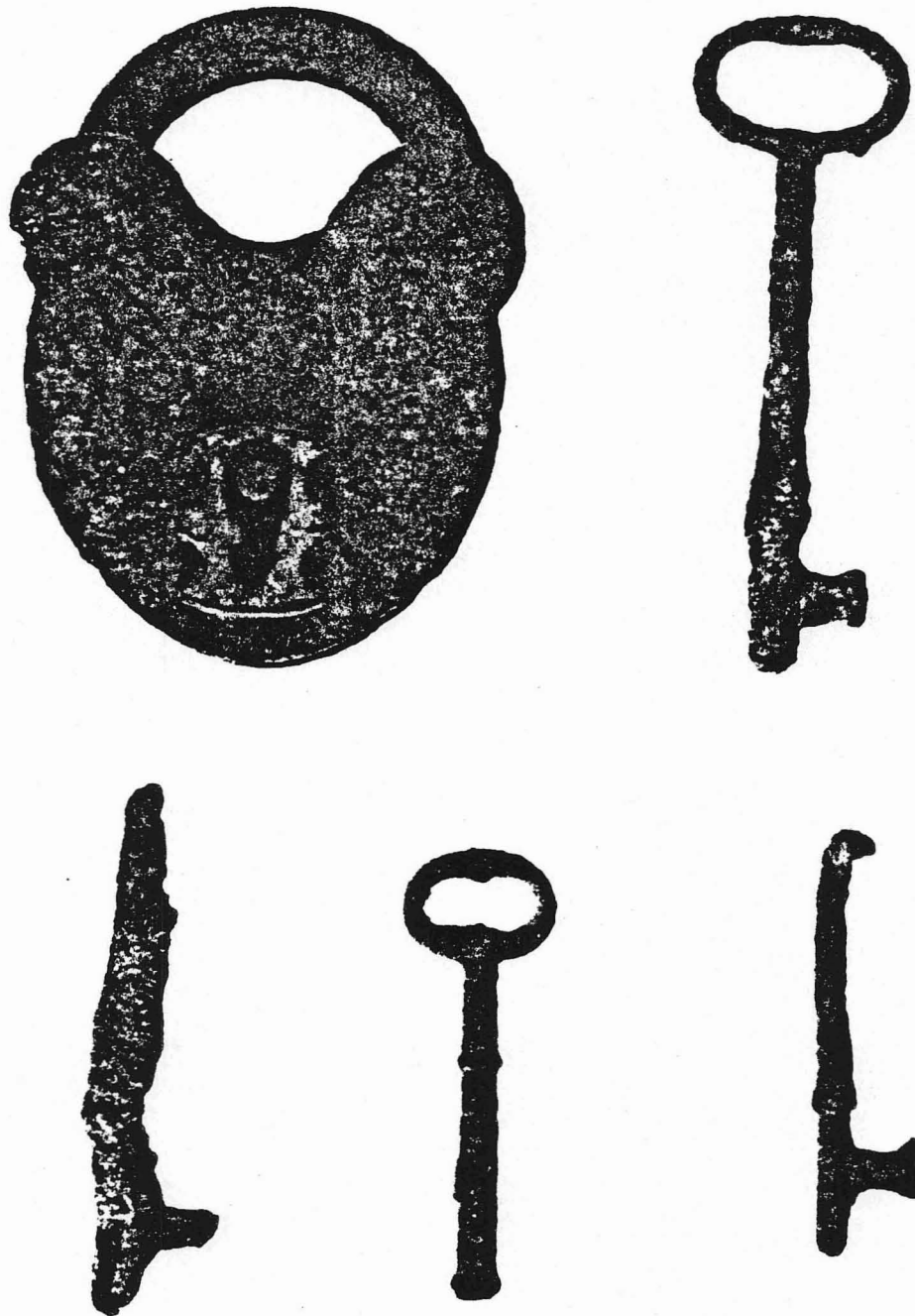


Fig. 76. Padlock and "skeleton" keys. Actual size.

Kettle

Part of a cast iron kettle was also found (2N 6E) between the two floors of the adobe (Peña Adobe Artifact Card #30).

Knives

Two knives and two spoons represent cutlery and flatware items.

One is a table knife (Cat. No. 1-0-1190); the other (Fig. 77), a butcher knife (Cat. No. 1-0-1191). Grips on both knives are missing. Notches on the butcher knife indicate that the handle was secured with twine rather than rivets. "FOSTER BROS." is impressed onto one side of the butcher knife, which measures 22.6 cm in length. Both are steel.

Spoons

The back of a pewter spoon (Cat. No. 1-0-1225) is decorated with a scallop design in relief. A plain steel



Fig. 77. Upper: needle valve to an oil burning stove. Lower: steel butcher knife stamped "FOSTER BROS". Actual length of needle valve 15.9 cm.

spoon (Cat. No. 1-0-1450) was also found. Handles are missing on both of these spoons.

Stove Parts

Needle Valve. A needle valve (Fig. 77) 15.9 cm long was used to control the fuel flow on an oil burning stove. The valve (Cat. No. 1-0-1195) contains brass, steel, and pewter parts.

Leg. A cast iron stove leg (Cat. No. 2-2-84) was recovered during the 1982 fieldwork. This leg is probably not from the oil burning stove mentioned above. The leg is heavy and not of the type used on oil stoves.

Miscellaneous Fragments. Two fragments (Cat. Nos. 2-1-25, 2-1-36) of a cast iron, oil-burning stove-top were found during excavation work. These fragments in their complete form were similar to a trivet, which sat on a stove (Merle Curtice, personal communication 1983).

COVER

A tinned-steel lid 17.5 cm in diameter (Cat. No. 1-0-1347) was probably used to cover a pot or bucket.

FURNISHINGS

Lamp Fixtures

Portions of lamp fixtures (Fig. 78) are the most numerous of the metal furnishing collected. Two metal burners or "wick controls" from small kerosene lamps were recovered. Knobs at the end of the ratchet handles that controlled the wicks, are stamped on both specimens. One of these knobs (Cat. No. 1-0-1197) is marked "PAT' APRIL' 10 1877." This appears to be patent number 189,542 by James G. Hallas and William N. Weeden of Waterbury, Connecticut. They were assignors to the Benedict & Burnham Manufacturing Company (U.S. Patent Office 1877a:84, 337; 1877b:636). The remaining knob (Cat. No. 1-0-1196) reads "*M.B.CO.N.Y./PAT. APL 10 83*." These are the letters for the Manhattan Brass Company of New York City (Herskovitz 1978:72), and the patent appears to be number 275,682 by Samuel Maxim of Wayne, Maine (U.S. Patent Office 1883:1416). Both wick controls are of yellow brass, and fed flat wicks.

Two yellow brass wick guards were also found. These guards sat on the wick control and the wick passed through them. Small holes in the guards helped feed oxygen to the flames. One of these guards (Cat. No. 1-0-1199) used a flat wick; the other (Cat. No. 1-0-1198) a round wick.

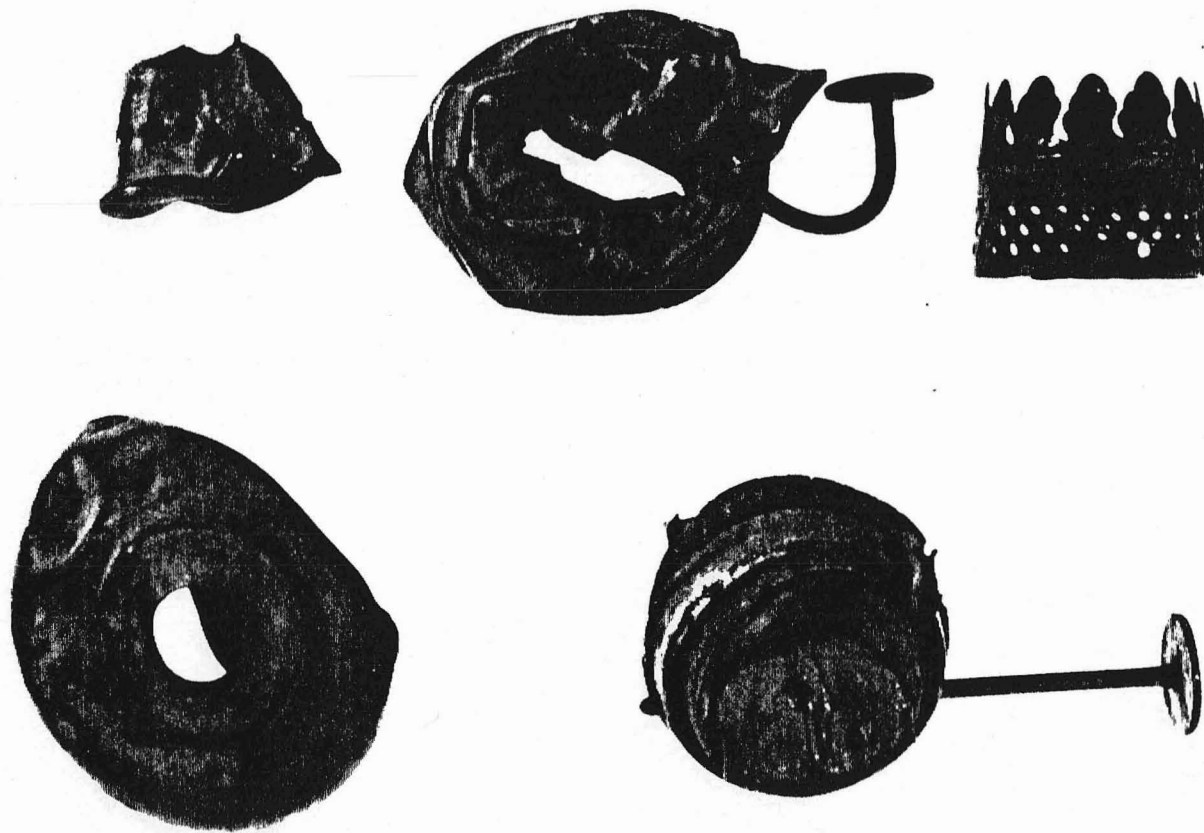


Fig. 78. Brass lamp fixtures and bedstead. Upper row: wick guard; kerosene lamp wick control; wick guard. Lower row: brass bedstead; kerosene lamp wick control. All actual size.

In the collection are the remains of what may have been a carbide lamp or an early electrical fixture (Cat. No. 1-0-238). The piece consists of a steel core with an opal glass skirt around the metal.

Bedstead

Another household furnishing item (Fig. 78) in the collection is part of a brass bedstead. All that remains of the bedstead (Cat. No. 1-0-1214) is half of a trim ball.

Miscellaneous

One early type steel hook was probably driven into a wall or cupboard (Cat. No. 1-0-1291). Two wall brackets (2N 6E) and a clothes hook (3N 6E) were found in the adobe between the wooden floor and earth floor (Peña Adobe Artifact Cards #23, #26, #27).

A brass crown-headed tack (Cat. No. 1-0-1349) was used to secure upholstery material onto furniture. A second upholstery tack head (Cat. No. 1-0-1695) is yellow brass; diameter 0.3 cm.

PERSONAL ITEMS

Various types of personal items were recovered: knives, jew's harp frame, thimbles, scissors, and part of a pocket watch.

KNIVES

Fighting Knife

A "fighting" knife (Fig. 79) was discovered by Stern Paulson (personal communication 1983) in the area where the Peña barn once stood. The knife (Cat. No. 1-0-1470) has a total length of 36.1 cm: the single-edged blade 23.9 cm; the guard approximately 1.0 cm, and the hilt or handle 11.2 cm. The knife is adorned with a diamond-patterned pommel. The guard, ferrules, and pommel are of brass or bronze. It is not possible to assign an exact date to this knife; it may have been manufactured prior to the 1880s and 1890s, as knives and daggers reached their nadir at this time (Peterson 1968:67). The knife does not resemble any shown in American Knives (Peterson 1958). It may have a Spanish origin.



Fig. 79. Fighting knife with a diamond patterned pommel. Actual length 35 cm.

Folding

A small two-bladed pocket knife (Fig. 80) 7.9 cm long, has a brass frame and bolsters (Cat. No. 1-0-1192). Grips are missing.

JEW'S HARP

The only remains of a musical instrument in the collection is the brass frame (Fig. 80) of a jew's harp (Cat. No. 1-0-1180).

THIMBLES

Three brass thimbles (Fig. 80) appear in the assemblage. The upper bodies of two (Cat. Nos. 1-0-1227, 1-0-1458) have small indentations. The third is entirely covered with needle points (Cat. No. 1-0-1836).

SCISSORS

One delicate cast-steel scissors (Fig. 80) was designed for sewing (Cat. No. 1-0-1467). The remains (Fig. 80) of a pair of small steel scissors (Cat. No. 1-0-1831) appear to have been embroidery shears, but they may have been a child's scissors. Handle fragments (Fig. 80) from three scissors were also found. One fragment (Cat. No. 1-0-1187)



Fig. 80. Metal artifacts. Upper row: pewter beer stein lid hinge; possibly a hat pin; lid possibly to an inkwell or powder bottle. Second row: mounting to a lady's brooch; scissors fragment; jew's harp; two-bladed folding pocket knife. Third row: sewing scissors. Lower row: brass thimbles; cuff link; scissor handle fragments. Artifacts shown four-fifths actual size.

is probably the remains of cast steel embroidery shears. The second scissor handle (Cat. No. 1-0-1182) is cast steel. The third handle (6N 6E) was found between the wooden floor and earth floor in the adobe (Peña Adobe Artifact Card #18).

POCKETWATCH

A round, silver-plated brass specimen (Cat. No. 1-0-1348) is identified as the back from an "Ingersol-type" pocket watch case. The back case is the "snapped" variation rather than the "screw-on" type. This was not a "quality" watch. It was never meant to be repaired when broken. Ingersol pocket watches were mass-produced.

MISCELLANEOUS FRAGMENTS

Jewelry

Hat Pins. A combination glass and metal object (Fig. 80) appears to be the top of a hat pin (Cat. No. 2-1-100). The glass is white, and rounded in a half circle. The underside of the glass is pierced with metal. An oval yellow brass jewelry piece (Cat. No. 1-0-1833) may have been the top of a hat pin. Centered on the back is a nipple which possibly held a steel pin. The front held a large oval portion, surrounded by seventeen smaller pieces of glass, or some other decorative material.

Brooch. The mounting (Fig. 80) to a lady's brooch (Cat. No. 1-0-1829) was recovered. It is octagonal, ornately decorated with flowers and leaves in relief, and stamped, "sterling," on the back. Four prongs once held the setting in place.

Lid

An ornate lid (Fig. 80) of German silver may have been the top of an inkwell or of a powder bottle. The lid (Cat. No. 1-0-1834) is 3.7 cm in diameter.

HARNESS GEAR

BUCKLES

Three harness buckles (Fig. 81) have been examined. The smallest buckle (Cat. No. 1-0-1178) has a width of 2.9 cm; it is steel, with a brass roller. A second steel harness roller-type buckle (Cat. No. 1-0-1177) is 5.1 cm in width. Both of these roller buckles are rectangular in shape. The remaining buckle (Cat. No. 1-0-1186) is rounded on one end, has a width of 3.8 cm, and is constructed of yellow brass, except for the tongue, which is steel.

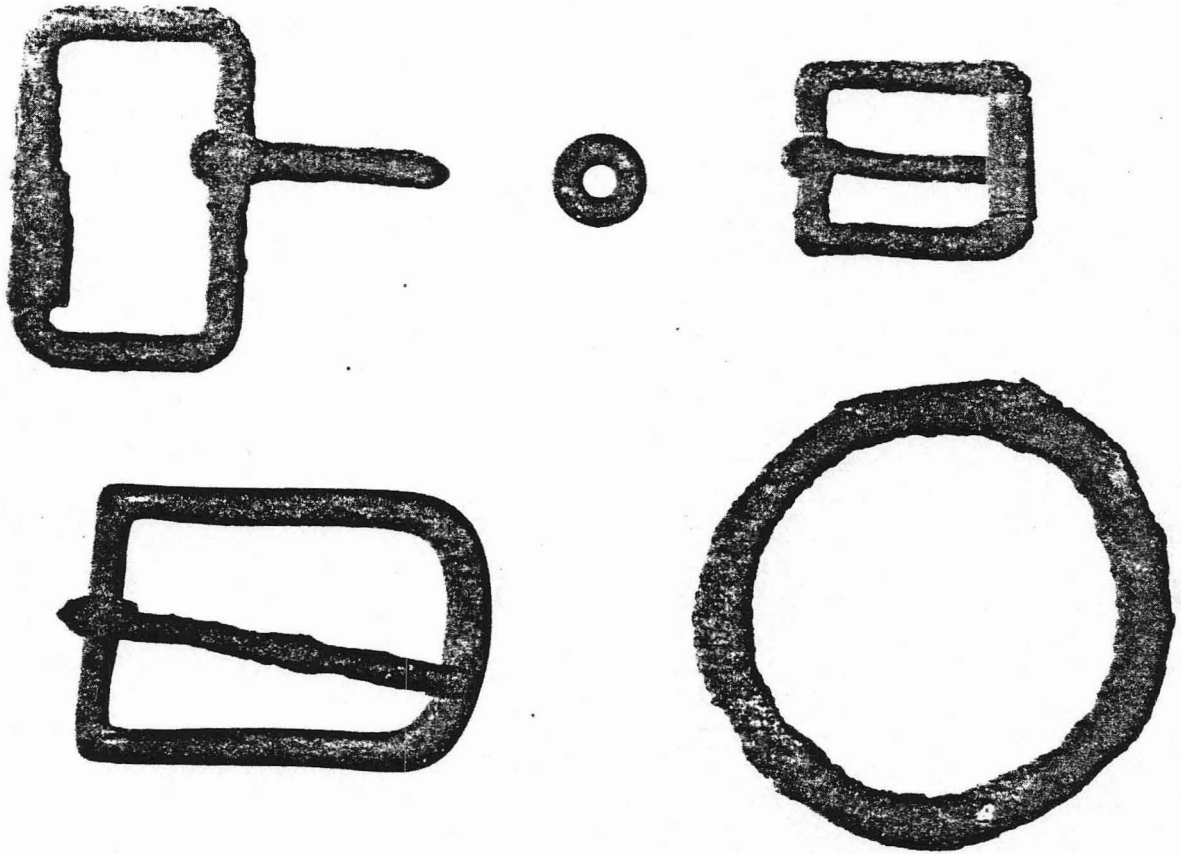


Fig. 81. Harness gear. Upper row: roller buckle; rivet; roller buckle. Lower row: buckle; ring. Actual size.

CONCHOS

A round brass piece (Cat. No. 1-0-1680) with an iron protrusion on its back has a diameter of 1.9 cm, and a thickness of approximately 0.5 cm. Its purpose cannot be ascertained, but it may have been a concho used to decorate leather harness. A large (3.3-cm diameter) two-hole yellow brass piece appears to also be a concho (Cat. No. 1-0-1826). It is backed with a heavier, metal composition. Fragments of coarse thread remain in the holes. The back is missing on a heavy, cast-brass "concho type" piece (Cat. No. 1-0-1804) which has eight radiating zig-zag lines. Its dimensions are 1.7 by 0.3 cm. A large two-hole yellow brass concho (Cat. No. 1-0-1826) has a diameter of 3.3 cm.

RING

A wrought-iron ring (Fig. 81), 6.3 cm in diameter, is probably a harness accessory (Cat. No. 1-0-1176).

MISCELLANEOUS

Rivet

A copper harness rivet (Fig. 81) could have been used to reinforce laminated harness leather or to attach buckles and rings (Cat. No. 1-0-1224).

Washer

A copper washer (Cat. No. 1-0-1691) was found.

TOOLS

AXE

Two tools, a single-bit axe and a scythe blade, were discovered during the 1962-1965 restoration work. The axe head (Cat. No. 1-0-1351) was found by Merle Curtice on the east adobe wall. It has a single bit and appears to be identical to an axe illustrated in Herskovitz (1978:80) called "Ohio pattern." It is cast steel.

SCYTHE

A 117-cm steel scythe blade (Fig. 82) was found in 1962 by Merle Curtice under the north frame addition (near the center). The handle end of the blade (Cat. No. 1-0-1352) is stamped "CAST STEEL/STEEL BACK." The other side of the handle is marked "ISAIAH BLOOD/BALLSTON N.Y." A scythe is used to hand-harvest grain or to mow grass. Its shape is somewhat similar to that of a sickle except its blade is much longer and the handle attachment is quite different.



Fig. 82. Scythe blade manufactured by Isaiah Blood of Ballston, New York.
Actual length 117 cm.

Two or three chopping, or "garden," hoes were found by Merle Curtice (personal communication 1983) while digging utility ditches in 1962. Unfortunately, these hoes could not be located.

TOY

A child's cap pistol (Fig. 83) manufactured from pot metal is missing its handle. A hole in the cap pan is designed to emit smoke into the barrel. This toy gun (Cat. No. 1-0-1451) has no spring and operated on a hand cock, pull trigger system.

MISCELLANEOUS AND UNIDENTIFIED ARTIFACTS

MISCELLANEOUS

Train Hardware

A railroad spike (Fig. 84), unearthed a few yards east of the adobe must have been carried onto the site. It (Cat. No. 2-1-12) is a smaller type, called a "tram-way spike," which was commonly used on mine tracks. Another piece of railroad memorabilia (Fig. 84) is a machine cast brass key (Cat. No. 1-0-1188) marked, "BLOCK 88 SYSTEM." This type of padlock key was used on automatic signal boxes, by the Southern Pacific Railroad. Southern Pacific had an

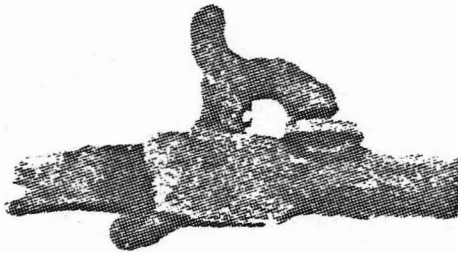


Fig. 83. Toy cap pistol.
Actual size.

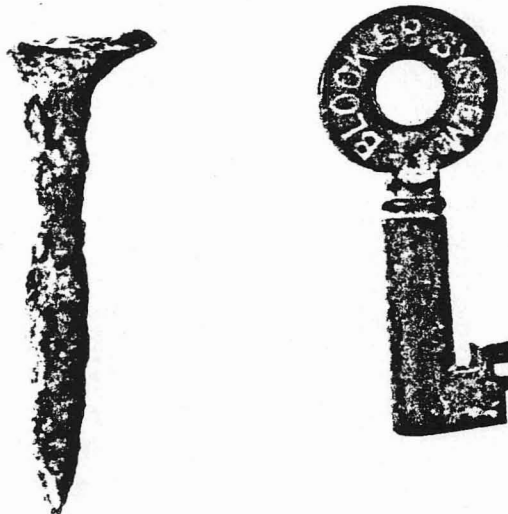


Fig. 84. Train hardware. Railroad
spike; padlock key used
on automatic signal boxes
by the Southern Pacific
Railroad. Actual size.

automatic block signaling system on its overland route from Oakland, California, to Ogden, Utah. The key shows little wear and probably dates from 1910 to 1920 (Walter P. Gray III, personal communication 1984).

Fasteners

A 3.8-cm number 10 steel wood screw (Cat. No. 1-0-1251) was found. One fragmentary steel carriage bolt (Cat. No. 2-1-37) 0.6 cm in diameter was recovered. It is a type used in spring and buggy wagons.

UNIDENTIFIABLE ARTIFACTS

The function of a small piece of flat steel spring (Cat. No. 1-0-1293) cannot be determined. A piece of iron wire (Cat. No. 2-1-11) may have been a construction staple. Three pieces of zinc scrap (Cat. No. 2-2-158) may be the remains of fruit jar lids. Two rectangular pieces of cast iron (Cat. Nos. 2-2-144, 2-2-145) may have been from a stove. They were found in the same unit as the cast iron stove leg. Their dimensions are: 0.9 by 10.4 cm and 1.8 by 10.2 cm.

A metal bracket was found between the wooden and earth floors (6E 10N) in the Peña Adobe addition (Peña Adobe Artifact Card #11).

NOTES

1. This brand was found in unit 26N 10E on April 30, 1964.

2. Wood Young (1971:Appendix L) suggested that this brand belonged to Juan Antonio Peña, father of Rose Peña Coombs. I believe the brand may be that of Juan Tapia Rivera, because a J is discernible as part of the R. Unfortunately Book 1 of registered brands is missing from the Solano County Courthouse.

Chapter 7

ANALYSIS OF ARTIFACTS OF MISCELLANEOUS MATERIALS

FROM THE PEÑA ADOBE

BONE

BUTTONS

In all, seventeen bone buttons (Fig. 85) were recovered at the adobe. These buttons range in size from 1.1 cm to 1.7 cm (refer to Appendix E for measurements). Two of the buttons are of the two-hole, sew-through type in which the central area is recessed. The holes are drilled through this area. Five of the four-hole buttons are similar. They are made in two pieces, the holes being in the lower disk; the upper disk has its center cut out. A sixth button has the same style, and differs only in being smaller. These were suspender or pants buttons (Brown 1968:193). Of the remaining four-hole sew-throughs, two are concave and two convex. Five-hole buttons are uncommon; only three bone five-hole sew-throughs were found. Two of these have the same style. They have a flat center, and a convex border. The third five-hole button has a deep recessed central area. These are utilitarian buttons (Epstein 1968:24-25).

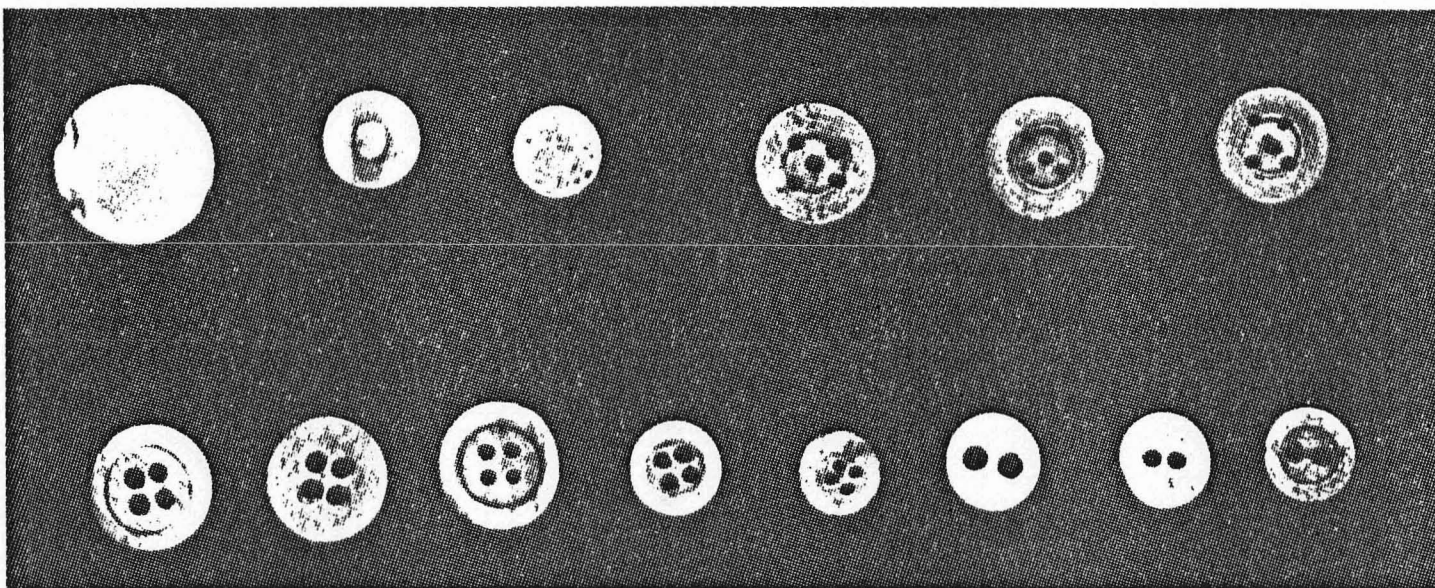


Fig. 85. Bone artifacts. Upper row: game piece; cuff-links; five-hole sew-through buttons. Lower row: four-hole and two-hole sew-through buttons. All actual size.

The majority of nineteenth century bone buttons were intended for underwear and household linen (Peacock 1972:21).

CUFF LINKS

Remains of two bone cuff links (Fig. 85) were found. They (Cat. Nos. 1-0-1710, 1-0-1711) have diameters of 1.3 cm and 1.2 cm, and are 0.1 cm and 0.05 cm in thickness, respectively.

GAMES

A round, polished piece of bone (Fig. 85) is believed to be from a Chinese game (Cat. No. 1-0-1480).

Mah-Jongg is a game originating in China. Eight bone mah-jongg pieces (Fig. 86) were recovered during the 1962 to 1965 restoration work. One of these (Cat. No. 1-0-1477) was found (2N 6E) between the wooden floor and earth floor in the adobe (Peña Adobe artifact card #28). The game pieces (Cat. Nos. 1-0-1471, 1-0-1472, 1-0-1473, 1-0-1474, 1-0-1475, 1-0-1476, 1-0-1477, 1-0-1478) are colored in green, red, blue, and black, and display a variety of symbols: Chinese characters, bamboos, and circles.

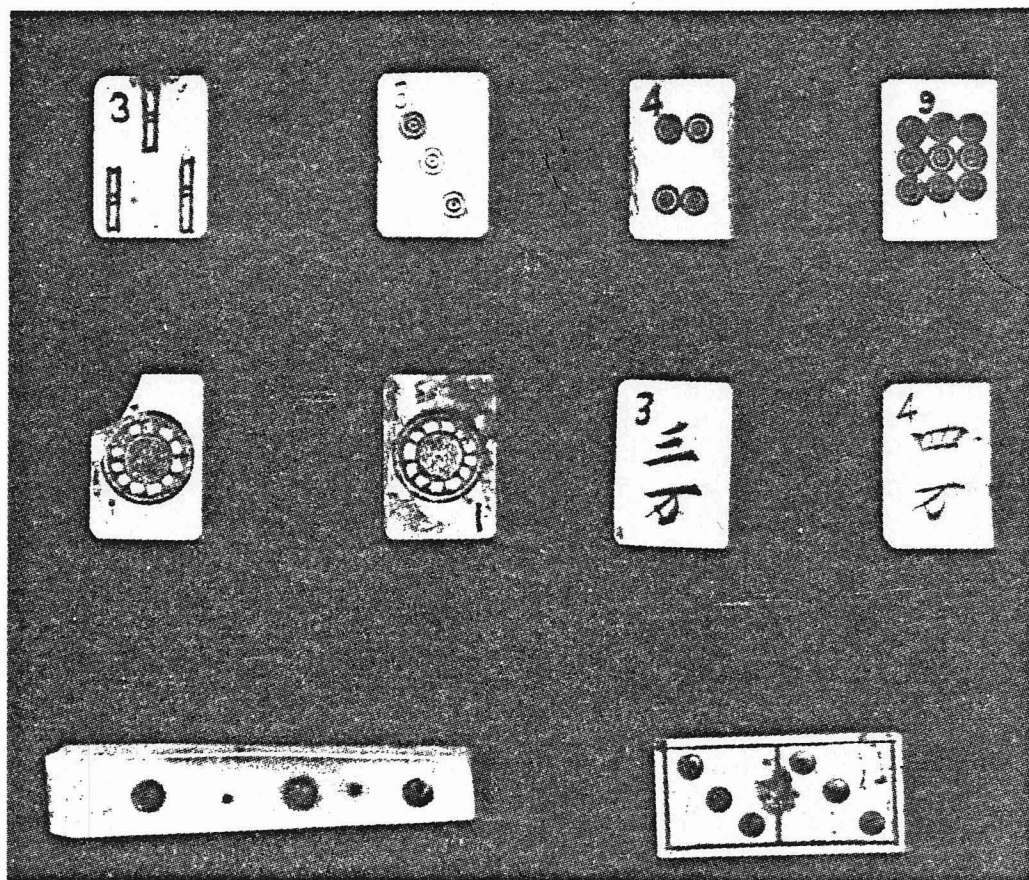


Fig. 86. Bone artifacts. Upper row: mah-jongg game pieces. Second row: mah-jongg game pieces. Lower row: knife grip; domino. Actual length of knife grip 7.6 cm.

One bone domino (Fig. 86) was recovered. It (Cat. No. 1-0-1479) has a total of six black dots, three on each side. Driven through the center of the domino is a copper rivet.

KNIFE GRIP

The collection contains one bone table knife grip (Fig. 86). It (Cat. No. 1-0-1207) had three decorative yellow brass inlays, two of which remain. Two holes through the bone show where the grip was riveted to the metal blade.

TOOTH BRUSH

Parts of a bone tooth brush were removed from unit 7N 2E in the adobe (Peña Adobe Artifact Card #4).

CELLULOID

"Celluloid" was a trade name given to a plastic composition whose principal ingredients are nitrocellulose, in the form of pyroxylin and camphor. The first American patents for this product were secured in 1869 and 1870 by John Wesley Hyatt and his brother of Newark, New Jersey. It was invented as a synthetic substitute for ivory (Brown 1968:221; Peacock 1972:82-84). The only celluloid specimen is a fragment of a spectacle frame (Cat. No. 1-0-1212).

GUTTA-PERCHA

Gutta-percha is a material resembling hard rubber. It is made from the dried juice of Malaysian evergreen trees of the genera Payena and Palaquium (Brown 1968:257; Neilson 1959:1118). Four buttons (Fig. 87) of this material were found: one is a two-hole sew-through, and two are four-hole sew-throughs. A gutta-percha "whistle button" (Cat. No. 1-0-1850) was also discovered. Refer to Appendix F for measurements of these buttons.

PAPER

BUTTONS

Papier-mâché buttons were made in the middle of the nineteenth century. These buttons were made from paper boiled into pulp or pressed into thin sheets, then mixed with adhesives. The mixture could be moulded or pressed into any desired shape (Luscomb 1967:143). Two four-hole sew-through papier-mâché buttons (Cat. Nos. 1-0-1693, 1-0-1694) are in the collection.

COUPON

Found inside the Peña Adobe during restoration work in 1962 was a scrap of paper titled "General Coupon," dated May

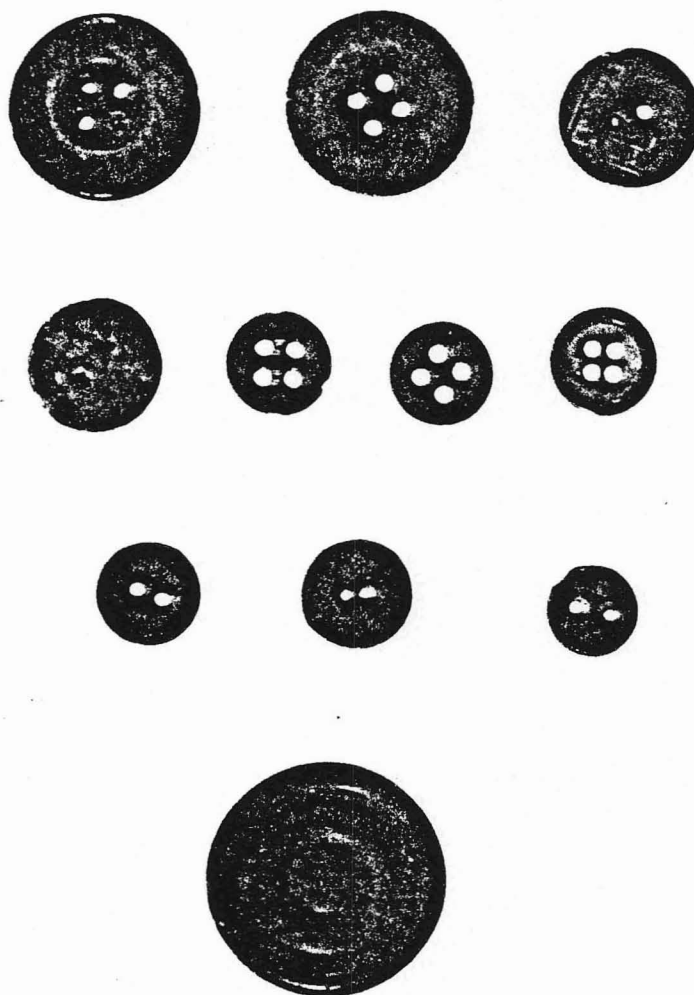


Fig. 87. Gutta-percha and hard rubber artifacts. Upper row: two gutta-percha buttons; hard rubber button. Second row: gutta-percha whistle button; three hard rubber sew-through buttons. Third row: gutta-percha button; two Goodyear hard rubber buttons. Lower row: checker game piece. All actual size.

27, 1894 (The Vacaville Reporter 1963b:17). A photo of this coupon shows that it had writing, but it can not be recorded, as the coupon is missing from the collection.

RUBBER

Hard rubber was invented in 1839 by Charles Goodyear. While trying to improve "India Rubber," Goodyear accidentally dropped rubber, mixed with sulphur, on a hot stove. He was granted his first patent on June 15, 1844, for this "vulcanization" process (Luscomb 1967:90-91). Three hard rubber buttons (Fig. 87) are of the four-hole sew-through type (Cat. Nos. 1-0-1862, 1-0-1863, 1-0-1864). One two-hole sew-through is decorated with a geometric pattern (Cat. No. 1-0-1851); another (Cat. No. 1-0-1815) is plain. Two plain-faced two-hole sew-throughs (Fig. 87) are marked "N.R.CO./GOODYEARS P=T." Nelson R. Goodyear was the brother of Charles. He received two patents relating to rubber, one in 1849, and the other in 1851. His name appears on many hard-rubber buttons, often with these two patent dates (Luscomb 1967:90-91). A two-hole sew-through (Cat. No. 1-0-1692) is made of a "rubber-like" material. This button may have had a copper sheathing, as a copper patina is present on the back side. Appendix F lists the dimensions of these buttons.

A black hard rubber hairpin (6 cm in length) was found in rodent disturbed soil between the wooden floor and earth floor (7N 2E) in the adobe (Peña Adobe artifact card #3).

SHELL

BUTTONS

Sew-Throughs

A variety of shell buttons (Fig. 88) were recovered (Appendix G lists the dimensions of these buttons). Fifty-one are two-hole sew-throughs, ranging in size from 0.80 cm to 2.50 cm. Thirty-eight of these "mother-of-pearls" are plain, and utilitarian. Seven of these are "fish-eyes" (holes are set in an oval recess, shaped like a fish) (Brown 1968:256). The thirteen remaining two-holes are more ornate, due to incising. Their carved designs range from fine lines to deeply carved geometric patterns. Four of these are "fish-eye" variants.

A total of 38 four-hole sew-throughs were found during the 1962 to 1965 restoration project. Of these, 30 are plain, undecorated mother-of-pearl. The remaining eight are relatively small, daintily engraved buttons. They range in size from 0.75 cm to 2.20 cm, and have finely carved abstract motifs (Fig. 88, third row).

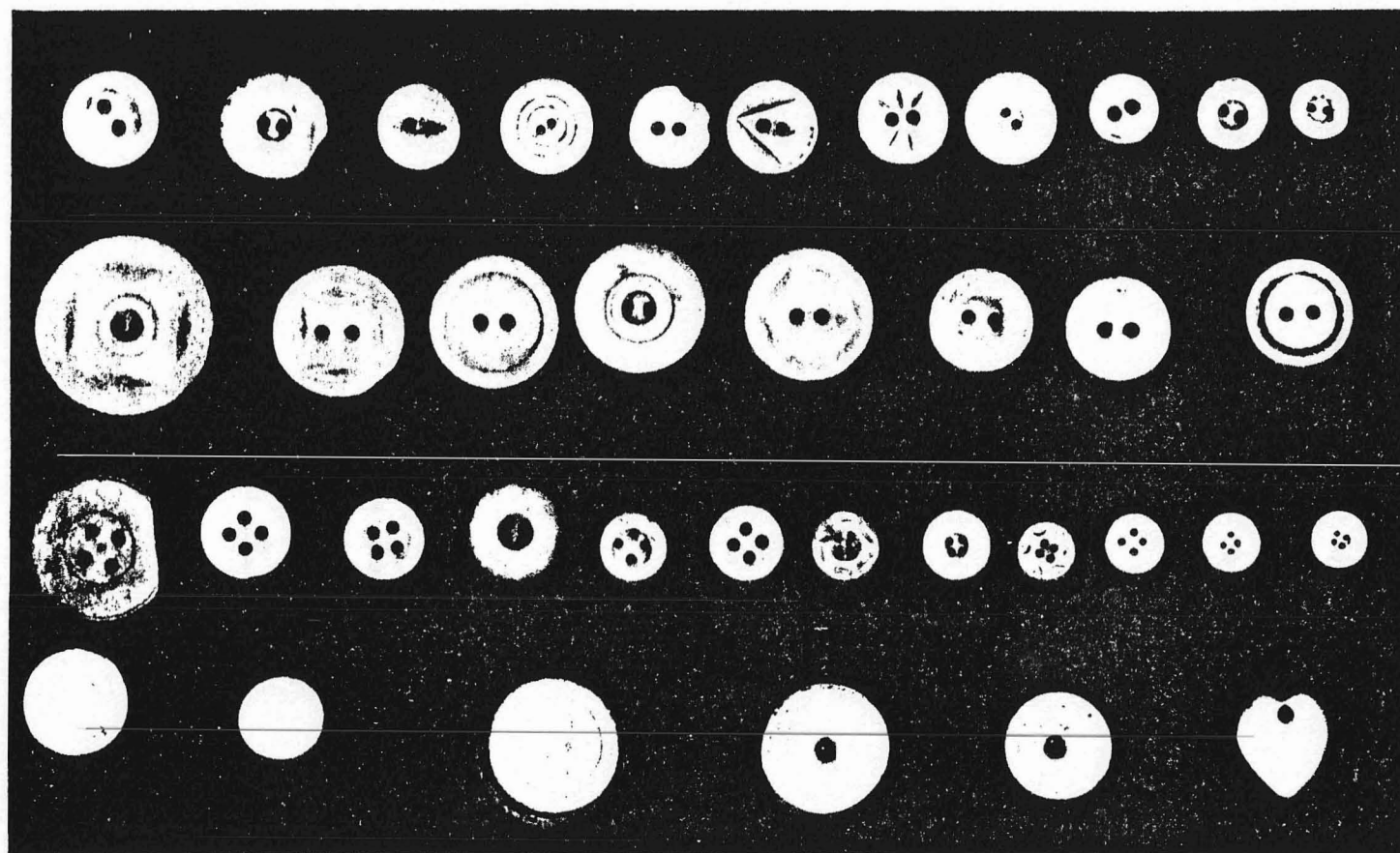


Fig. 88. Mother-of-pearl shell buttons. Upper row: two-hole sew-through buttons. Second row: two-hole sew-through buttons. Third row: four-hole sew-through buttons, some with simple hand carved designs. Lower row: two buttons that have brass shank-plates; "SUPER QUALITY/*CE*" is stamped on the back of this button that has a brass collet and back; two buttons with "pin-head shanks"; possibly a button or necklace pendant. All actual size.

Shanks

Three mother-of-pearl buttons have metal "pin-head shanks" (Fig. 88, bottom row). One of these shanks is brass (Cat. No. 1-0-1771); the remaining two (Cat. Nos. 1-0-1676, 1-0-1772) are steel. Two other shell buttons (Cat. Nos. 1-0-1774, 1-0-1775) have brass shank-plates (Brown 1968:266).

The most ornate of the shell buttons is a four-piece composite (Fig. 88, bottom row). The top of this button is mother-of-pearl, the collet and back are heavy brass; the loop shank, copper (Cat. No. 1-0-1773). Impressed on the back of this unusual button is the logo "SUPER QUALITY/*CE*."

Miscellaneous

A small heart-shaped mother-of-pearl piece (Cat. No. 1-0-1770) may have been used as a button or necklace pendant. A hole is drilled at one end. This piece may have been handmade.

STONE

ALABASTER

A fragment of alabaster (Cat. No. 2-2-97) cannot be positively identified. It has a circular, smoothed outside surface. A circular channel went through its center. This may have been a lamp ornament, with a metal rod through the center of the alabaster.

SANDSTONE

An approximately 2.5 by 5.0-cm piece of hard, fine-grained sandstone (Cat. No. 1-0-438) appears to have been a whet stone.

SLATE

Nine slate pencil fragments and one small slate fragment (Fig. 89) are included in the collection. This remnant (Cat. No. 1-0-1221) is roughly 6.3 cm by 3.8 cm. When new, slate pencils were typically 12.7 cm in length. The diameter of these pencil fragments is 0.5 cm.

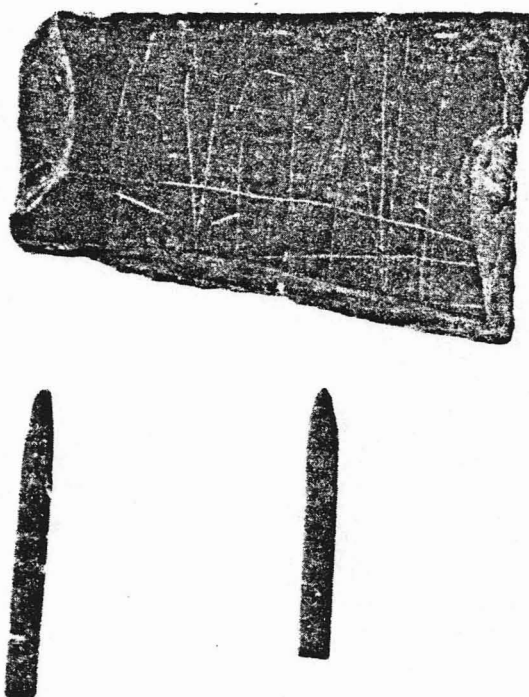


Fig. 89. Slate tablet and pencils. Actual size.

MISCELLANEOUS

A stone marble 2 cm in diameter was found during the 1962 restoration work between the wooden floor and earth floor (4N 3E) in the Peña Adobe (Peña Adobe Artifact Card #6).

VEGETABLE IVORY

BUTTONS

Two buttons of "vegetable ivory" are of the two-hole sew-through type (Cat. Nos. 1-0-1678, 1-0-1870). Vegetable ivory is made from the kernels of certain South and Central American palms, such as Corozo and Tagua (Brown 1968:263).

WOOD

One wood specimen is a 10.2-cm-long, one-piece clothes pin (Cat. No. 1-0-1205). Another is a "dutchman" (Cat. No. 1-0-1295), from a sawed shingle; its intended use could have been as a template or perhaps a "filler" to correct carpentry errors.

A balsa wood thread spool (Cat. No. 1-0-1487) was catalogued. This spool has a height of 2.85 cm, an outside diameter of 2.3 cm, and an inside diameter of 1.4 cm.

BUTTON

A two-hole (not sew-through type) wood button (Cat. No. 1-0-1684) has a white glitter front that may be ground sea shell. It has a diameter of 1.8 cm, and a width of 0.5 cm.

MISCELLANEOUS

A black checker game piece (Fig. 87) discovered between the wooden floor and earth floor (3N 6E) in the adobe has a diameter of 3.1 cm and a width of 0.8 cm (Peña Adobe Artifact Card #22). Its composition cannot be positively determined, but possibilities are gutta percha, or a combination of clay and rubber.

Chapter 8

DISCUSSION OF THE PEÑA ADOBE

ARTIFACTS AND HISTORIC DATA

This assemblage analysis attempts to interpret the Peña family's lifestyle, in conjunction with historic documents, from an archaeologic perspective. Too often the early rancho days have been romanticized, reflecting little of the everyday lives of its peoples (Appendix I).

INTERPRETATION OF THE ARTIFACT COLLECTION

INTERPRETING ARTIFACT DATES

Spatial analyses of the Peña Adobe collection were not possible, since most artifacts in the collection lack provenience. Because the adobe home is an historic site, approximate dating of many artifacts was possible.

Undoubtedly, the Peñas and Vacas brought with them few possessions from New Mexico. The Old Spanish Trail was, in places, so precipitous and narrow that the Workman-Rowland party did not travel with wagons. They took only pack mules and horses for transportation (Hafen and Hafen 1954:20-21, 186-187, 199; Limbaugh and Payne 1978:18). Taking into account draft animal capacities, probably few items not

essential for the trip or for pioneer life in California were transported. This assumption is borne out in the archaeological record. Only one bottle has a pontil mark, which dates it pre-1860. The earliest ceramic piece is that of a bowl manufactured by John Wedge Wood between 1841 and 1860. Both of these items were probably acquired by the Peñas after they came to California. A few of the buttons ("Colonial" types and the two buttons manufactured by Robinsons, Jones & Co. and Benedict & Burnham) may date earlier than 1841. Buttons were often saved and sewn on new clothing. This, and the fact that they are small, made buttons plausible objects to have been transported by the Peñas on the Old Spanish Trail.

Merchandise Availability

Almost all artifacts in the collection are from the post-1860 Peña occupation period. The accessibility of merchandise partially explains this phenomenon.

In the early 1840s, the Vacas and Peñas were surrounded by other ranchos: Rancho Tolenas, or the José Francisco Armijo grant of 13,315 acres lying in northeastern Suisun Valley; Rancho Suisun in Suisun Valley of 17,754 acres granted to Francisco Solano (leader of the area's Native Americans), later purchased by Mariano G. Vallejo; and Ran-

cho "Río de los Putos," or the Wolfskill grant of 17,754 acres, to the northwest, in the Putah Creek area (Fraser 1879:130-136; Thompson and West 1878:9-10; Hunt and Gunn 1926:77-78; Hoover, Rensch, and Rensch 1966:511-513; Beck and Haase 1974:29). This latter rancho was granted to William Wolfskill, later acquired by his brother, John R. Wolfskill, who raised horses and a few cattle (Currey 1907:7; Hafen and Hafen 1954:196). As the Peñas and Vacas were surrounded by ranchers, they would have had to either travel far for merchandise, perhaps to Sonoma, or trade with one another. It is believed that they traded hides and tallow for material goods from trading vessels at Yerba Buena (San Francisco) (pages 262-263). Although these ships would bring cargos from distant markets, the Peñas and Vacas would still be limited by what the ships brought, and by their frequency. The Vacas and Peñas are also reputed to have traded with the Russians for silks and possibly for other merchandise (Crystal 1933:84).¹

The general paucity of goods was conducive to a self-sufficient life style. The Vaca and Peña adobes in the 1840s were furnished with rawhide chairs, home-made tables, and wooden bedsteads. They fashioned their mattresses of sheep wool, and their comforters with wool batting (Crystal 1933:83). By the late 1880s the Peña family was purchasing their furniture (Appendix J).

Development of Towns. Eventually, portions of these ranchos were sold and towns began to appear. Benicia, established in 1847, is the oldest town in Solano County. Soon a few towns (Cordelia, Rockville) were founded along the old stage road between Sacramento and Benicia, which passed just to the east of the Vaca and Peña adobes (Thompson and West 1878:9, 11-12). On December 13, 1851, the plat of Vacaville was filed (Limbaugh and Payne 1978:1). Coinciding with the development of these towns was an influx of people. Solano County population, in 1850, was 580 (Hunt and Gunn 1926:40); in 1852 it was 2835 (Fraser 1879:72), by 1860 it reached 7169, with Vacaville having a population of 1831 persons (U.S. Census 1864:31, 33). This rapid growth in a short period would increase the demand for material goods and services. One can assume that the supply of goods to the area must have dramatically increased. In the fall of 1854 the availability of items certainly improved for the Vacas and Peñas, when the first general merchandising store in Vacaville was opened by E. F. Gillespie. About 1856, Juan Felipe Peña ordered dress hoops from a Vacaville merchant for his seven-year-old granddaughter, Maria Dolores Peña. The merchant had the hoops made in San Francisco (Crystal 1933:84-85). By 1878, Vacaville had three general merchandising stores and two drug stores (Thompson and West 1878:12).

Railroad. The completion of the railroad in 1869 opened a diverse and far-reaching network of markets for those living in Solano County. The railroad enabled large quantities of merchandise to enter Vacaville on a regular basis.

Peddlers. The peddler was another source of merchandise. Rose Peña Coombs (n.d.) recalled many peddlers coming to her grandfather's ranch when she was a child (1880s). One peddler she remembered in particular was a "little old German" they called "Snicklefritz." He would come on foot from Vallejo, carrying an immense pack on his back and holding a large pack in each hand. He carried many items, such as socks, stockings, dress goods, pins, needles, thread, underwear (for men, women, and children), perfume, hairpins, ribbons, combs, handkerchiefs, soaps, laces, and many other things. "Snicklefritz" would spend the night with the Peñas and leave the next morning for Vacaville, Sacramento, and other points.

Technology

The abundance of post-1860 glass bottles is in part attributable to improved merchandise availability (as outlined above) and in part to the bottle industry's advancements in technology. A greater number of bottles could be

manufactured with the advent of piece-moulds (several separate pieces fastened together to make a complete mould), snap cases, and lipping tools (Ferraro and Ferraro 1966:13, 20, 23, 100). A skilled blower was able to make 400 dozen bottles a day (Maust 1965:61). The glass bottles in the collection were blown in piece-moulds and in most cases required only their lip to be hand-finished. These mass-produced bottles were more abundant, less expensive, and often discarded. Some of the bottles in the collection were entirely made by machine.

Skewed data are a possible explanation for the artifacts dating mainly to the latter Peña period. Many of the artifacts were found in a privy, and it is possible that there are earlier privies (and a well) containing discarded artifacts. Around 1880, the adobe was modernized. During this major renovation its occupants may have beautified the site by hauling away or burying older trash. According to Rose Coombs (1967) "hogs ate the garbage, and refuse was burned and buried, or dumped near the lake."

ECONOMIC STATUS

Utilitarian Artifacts

Most of the Peña-period artifacts are utilitarian, and they reflect a modest economic status for the Peña family.

Kitchen and Tablewares. Of the kitchen and tablewares, ceramics are common: ironstone, inexpensive compared to porcelain, dominates. Recovered pieces are generally undecorated and plain. English ceramics with makers' marks were produced in Staffordshire, where prolific potteries manufactured and shipped inexpensive ironstone wares to the United States. Manufacturers of more expensive wares, such as Spode and Wedgwood, are not represented in the collection.

Crocks and Jars. Ceramic crocks and jars are also utilitarian items one would expect to find in a farm or ranch house. Fragments of these vessels were recovered, and it can be inferred that the Peñas prepared foods for storage.

Luxury Items

The Peñas also purchased some luxury items. Personal goods, such as hair dressing, shoe polish, and perfume, were found. The few retrieved condiment vessels once contained mustard, peppersauce, imported Yee Chun sauce, and pickles. Sodas, beer, wine, imported ale, and whiskey were apparently drunk by the Peñas.

Pressed Glass. Although pressed glass was generally an affordable "luxury," not much of it was recovered near

the adobe. In this case, scarcity of a specific artifact type is informative, possibly suggesting a trend towards more utilitarian wares.

Historic Record. Traditions and pride prompted purchase of some luxury items. Rose Peña Coombs purchased some red bandana handkerchiefs for her father, Juan Antonio. He was very much displeased, stating, "I have never used anything but white linen handkerchiefs, and I am not going to start now." Coombs had to return the bandanas, and buy white linen ones (Brazelton 1963).

Luxurious silk dresses and expensive silk shawls were plentiful, according to Maria Dolores Peña Lyon, granddaughter of Juan Felipe Peña and Juan Manuel Vaca. "The Russians at Fort Ross imported beautiful silks which they traded to my grandfathers for cattle, hides and wool."¹ Most of the silk came from China (Crystal 1933:84).

The economic picture revealed in these artifacts is that of a relatively modest family that could afford some luxury goods. There may have been a larger ownership of luxury items than appears in the assemblage because they would more likely have been cherished and inherited by the descendants. Also, there is no evidence for perishable items such as silk dresses or linen handkerchiefs in the archaeological record.

The Peña Adobe is very modest in comparison to the Estudillo home in Old Town San Diego or the Ávila Adobe² on Olvera Street, Los Angeles pictured in Bauer (1953:15, 49). Around 1880, the Peña Adobe was "Americanized" by enlarging the home and encasing it in redwood sheathing (Fig. 10 page 28). Even this modernized abode was simple in comparison to the stateliness of the spacious Wolfskill home, built of volcanic tuff (Wickson 1888:68-69, Plate IX). This house was destroyed in the 1892 earthquake and replaced with an even more grandiose 17-room frame structure that had "parlors and reception rooms, dining rooms, billard and smoking rooms," along with bathrooms and servants' quarters (Crystal 1933:131-132; Hoover, Rensch, and Rensch 1966:512).

ECONOMIES

Artifacts representing two economies, ranching and horticulture, were catalogued.

Ranching

Stockraising was the Peñas' and Vacas' livelihood when they first settled their grant in 1842 (U.S. District Court Records No. 74 ND:5; Hendry and Bowman 1940:424i). A neighboring rancher, John R. Wolfskill, testified at a Court hearing (December 28, 1854) that in 1846 Vaca and Peña had

about 2000 cattle and 200 to 300 horses (U.S. District Court Records No. 74 ND:97). Family tradition³ says that Juan Felipe Peña's brother, Antonio, returned to Old Mexico and purchased horses and a large number of cattle which were driven to California by some of the Vaca brothers, with the aid of Indian vaqueros. Juan Felipe Peña met them near Rio Vista, where they swam the cattle across the Sacramento River (Young 1971:12). Cattle roamed freely on the unfenced land, feeding on wild oats. Each year Vaca and Peña had a rodeo to collect the stock. They notified their neighbors to attend the event and claim their cattle (U.S. District Court Records No. 74 ND:99). Five cattle brands in the collection are material proof of ranching.

In addition to cattle, the Peñas had sheep. As a young man, Gavino Peña, youngest son of Juan Felipe, was in charge of the sheep. He lived on Putah Creek (Coombs 1963b). The Peñas and Vacas may have brought sheep with them from New Mexico. It is known that the Workman-Rowland party drove sheep before them for food (Hafen and Hafen 1954:209; 211).

Barter System. California experienced several different economic phases in cattle ranching. When the Peñas and Vacas first arrived in California, cattle were valued primarily for their hides and tallow. Trade in hides and tallow started in 1822 with two English partners, William P.

Hartnell and Hugh McCulloch, who negotiated a three-year contract with the California Missions (Cleland 1959:69). Dried hides, called "California bank notes," had a fluctuating value of one to three dollars each (Cleland 1959:70). The rancheros would barter their hides and tallow for merchandise such as dry goods, sugar, spices, guns, cloth, shoes, saddles, and hardware brought in by sailing ships from the United States, Mexico, the Orient, and Europe. Trading ships, anchored in San Francisco Bay off Yerba Buena Cove, dispatched to various points on the bay boats to shuttle the rancho and his goods to the ship. Eventually year-round stores were established (Beck and Haase 1974:41; Cleland 1959:69-70; Garrison 1935:169-171). The Vacas and Peñas probably traded in Yerba Buena (San Francisco).

Labor: Palumbo's (1964:5) fieldwork near the Peña Adobe suggests that the site was occupied by Indians after Anglo contact in California, even though epidemics had decimated the aboriginal population of the region (Southern Patwin). Palumbo's crew recovered glass trade beads and a bottle glass projectile point. Another glass point was found east of the adobe in the early 1960s by Frances Curtice.

Juan Felipe Peña is reputed to have hired approximately twenty Native American men and their families to look after his cattle, sheep, and horses (Crystal 1933:41; Palumbo

1964:5). The smallpox epidemic of 1837-1839 left fewer than one hundred Native Americans in the area from Suisun Bay to Putah Creek (Limbaugh and Payne 1978:5; Thompson and West 1878:9). One can assume that a few of these "devastated" persons would become ranch hands and house servants,⁴ as they would have had few viable options.

Cash Economy. A new phase in ranching occurred during the gold rush. In 1846, cattle in Alta California were worth about \$4.00 a head. In late 1849, beef brought \$500.00 a head at Sacramento, and for years later, more than \$50.00 (Bean 1973:203-204). No longer were cattle valued for their hides and tallow, but rather for their meat, to feed miners, pioneers, and later rail workers. In 1852, Juan Felipe Peña's stock was worth \$15,000 (Vacaville Reporter 1967:4). According to Wilson (1937:49) "a whole day's hard riding about the grant would not reveal half the extent of their four-footed [cattle and mustangs] possessions." In the early 1850s, the

vaqueros congregated every day about the settlement, smoked cigarettes, ran races, played cards for high stakes, and drank bad whiskey in unlimited quantities. The man of position [Vaca] felt proud of his patrician blood, and condescended when he addressed his surrounding inferiors. He wore a broad sombrero, gold-laced jacket and wide bell-decked pantaloons, girt his waist with a flaming sash, wore jangling at his heels, large, clanking, silver spurs, swung a lariat with unerring aim, and in the saddle looked a centaur [Wilson 1937:50].

Decline In Ranching

Although the inflated value of cattle made most of the California rancheros suddenly prosperous, it was ephemeral, and many were ruined by land litigations, interest, taxes, and inexperience in business and financial matters. Many lost their ranches to Anglo Americans and Europeans (Bean 1973:203-204).

Land Sales. Ranching requires large tracts of land, whereas non-mechanical horticulture can be sustained on smaller acreages with intensified care. Courthouse records of early Los Putos Rancho sales document losses of stock land.

On April 7, 1849, the first recorded sale of land from Los Putos was made by Manuel Vaca to John Patton (Senior), John Patton (Junior), and Albert Lyon. These men arrived in Vaca Valley in 1846 (Fraser 1879:63). They purchased half a Spanish league between Alamo and Ulati Creek for \$800⁵ (Solano County Records Book E Deeds:38). Apparently, to match this transaction, Juan Felipe Peña sold half a league of land on March 30, 1850, to Haunt Hollingsworth and Jacob D. Hoppe (Young 1971:17).

On August 21, 1850, Manuel Vaca deeded nine square miles to William McDaniel with the provision a town of one

mile square (Vacaville) be named after him. Vaca received \$3000.00 and 1055 lots after the town had been surveyed by E. H. Rowe and a plat of it filed December 13, 1851 (Solano County Records Book C Deeds:306-307; Crystal 1933:217).⁶ Peña strongly disagreed with the Vaca-McDaniel deal according to Maria Dolores Peña Lyon, granddaughter of Peña and Vaca (Crystal 1933:215-216). Currey (1907) wrote that Vaca and Peña were disputing in the early 1850s. Their argument was probably about the founding of Vacaville. According to Rico (1981:6-7), in May of 1851 Vaca printed in the California Gazette a complaint that read:

Caution. I hereby notify all persons, not to purchase any lands from William McDaniel, which he claims to have purchased from me under a title which he obtained from me under false pretenses and I shall institute suit against him to annul the title so fraudulently obtained by him. Manuel Baca.

Vaca claimed that he had negotiated one square mile with McDaniel, not nine square miles. Being illiterate, he had been at the mercy of an interpreter when he placed his mark "X" on the deed. McDaniel sued Vaca for libel and the loss of a \$50,000 land sale. Judge Robert Hopkins of the Seventh Judicial District Court presided over the case, which began October 30, 1851. Rico (1981:7) writes that Juan Felipe Peña testified he had no knowledge of the Vaca-McDaniel transaction. When asked about the deed he signed

which forfeited his title to the nine square miles, he testified that he had not conveyed the interest, and had never been to the County Clerk's office. The jury found Vaca guilty of libel on the following day, and fined him \$16,500. The decision was appealed to the State Supreme Court, which after eight months of review, ruled that Vaca's newspaper warning was something that "every freeman and freeholder would be justified in making if the circumstances raised a strong presumption that the fraud had been attempted upon him to get possession of his estate" (Rico 1981:7). The state court decided that the court judgment should be reversed and that a new trial, at McDaniel's expense, proceed. No further records of this litigation are known (Rico 1981:6-7).

Hard Currency: A need for cash must have prompted some of the land sales. State and county taxes had to be paid each year. Juan Felipe Peña paid \$188.00 in taxes on 19,926 acres, November 1, 1850, the land being valued at \$1.25 per acre. In 1852, he paid \$941.34 on 24,354 acres and in 1853, his property tax increased to \$1487.69 (Solano County Property Tax Receipts 1850, 1851, 1852). An uncertain future under an Anglo government may have prompted conversion of some lands to hard cash.

Solano County tax records reveal how quickly the 44,384-acre rancho diminished. In 1858 Vaca's and Peña's real estate holdings (excluding town property) totaled only 13,777 acres valued at \$55,108 (at \$4 per acre) (Solano County Assessment Roll 1858).⁷ José Demetrio Peña and Nestora Peña Rivera are the only offspring of Juan Felipe listed in the 1881 Assessment Roll. Nestora possessed 1002 acres worth \$14,470 and José Demetrio had 966.50 acres much of which was mortgaged. They paid \$316.99 and \$66.32 in taxes respectively (Solano County Assessment Roll 1881:120, 138).

The fact that legal fees were paid in land rather than cash supports the notion that Vaca and Peña were short of hard currency. For example, on January 14, 1853, Juan Manuel Vaca owed John Currey \$2500 and Jeremiah Clarke \$700. He deeded them approximately 9 square miles (5760 acres) to pay his debt (Solano County Records Book G Deeds:67-68). Court fees also accrued. Peña and Vaca were charged \$73.27 in clerk's fees in the United States Northern District Court of California (U.S. District Court Records No. 74 ND: 108-109).

Squatters. These sales were made prior to September 9, 1850, when California became a State. Under the 1848 "Treaty of Guadalupe Hidalgo" the United States was obliged

to confirm all valid rancho titles (Thompson and West 1878:10; Gregory 1912:64; Hunt and Gunn 1926:77-78). Vaca and Peña had a difficult time in securing a patent to Los Putos. The Land Commission, created in 1851 to review the Mexican grants, rejected on November 15, 1853, the Vacas' and Peñas' petition for confirmation of their ranch title (Solano County Records Book 1 patents:36-44). They were refused a Patent because Peña had been named "Armijo" in the Mexican land grants, by Micheltorena and Pío Pico (Armijo was the name of his stepfather); also the Rancho boundaries were vague and indefinite, as the grant had not been surveyed. The rancho was extensively trespassed after title to it had been rejected (Currey 1907:8-9; Hunt and Gunn 1926:81-82). This further reduced the grantees' lands (Gregory 1912:124-125).

Legal Fees. Rancho Los Putos was further diminished in size as a result of court litigations. Vaca and Peña hired Jones,⁸ Thompkins, and Stroube as attorneys to represent their case to the Land Commission. A petition filed February 20, 1852, was rejected by the State Land Commission on November 15, 1853 (U.S. District Court Records No. 74 ND:7, 63-73). After the Commission's rejection, John Currey was retained to appeal the decision in the United States District Court. Vaca and Peña were feuding at the time and each hired separate lawyers with the exception of Currey,

who was employed jointly. Peña contracted Judge S. D. Hastings of Benicia, and Vaca hired Captain John B. Frisbie (Currey 1907:8-10). Currey (1907:10) states that he:

prosecuted the appeal without any aid from either Hastings or Frisbie, or from Jones, Thompkins and Stroube, and after about two years obtained a decree of confirmation of the ranch from Judge Ogden Hoffman, the United States District Judge. From this decree of confirmation, an appeal was taken to the United States Supreme Court, by which Court the decree of confirmation was confirmed.

The Supreme Court decision was rendered May 12, 1856, and the final Patent to Los Putos was awarded on June 4, 1858, by President James Buchanan (Young 1971:20; Solano County Records, Book 1 Patents:36; U.S. District Court Records No. 74 ND:126-128).

For fees, the lawyers had contracted to be deeded ten percent of the ranch. Vaca and Peña executed deeds respectively to their lawyers. Thus, Currey received half a league of land; Frisbie and Hastings each received a quarter of a league (Currey 1907:10).

During the years of litigation (1853-1858), sales of the rancho practically ceased.⁹ With a confirmed title, land was rapidly sold from 1860 to 1880 (Young 1971:24, 26; Limbaugh and Payne 1978:65-66; Gregory 1912:125). For instance, José Demetrio Peña deeded 3760 acres to Oliver C. Udell on August 29, 1861 (Solano County Records Book "Q"

Deeds:176). Wood Young (1971:Appendixes S and T) has a partial list of 127 early settlers and companies that acquired lands in the Los Putos Rancho.

In 1852, the rancho had become rather thickly settled, for a stock region (Wickson 1888:95). By 1879, most of the grant had been sold, and the Vacas and Peñas were farming a very small portion of the original estate. According to Limbaugh and Payne (1978:99), few of Juan Manuel Vaca's descendants lived on the rancho by the 1880s. In 1879, Demetrio Peña's ranch consisted of only 800 acres, much diminished from his original 10,500 acres (Fraser 1879:136, 462; Solano County Records Book N:781).

Horticulture

Two years of drought, from 1862 to 1864, nearly destroyed California's cattle industry. After the drought, wheat replaced beef as the state's most important agricultural product. There are no known documents to show how adverse a period this was for the Peñas and Vacas, but it may have been a transition period to the growing of grains. By the 1870s the Peñas definitely considered themselves agriculturalists as Demetrio Peña is listed as a Vacaville farmer in the Solano and Napa Counties Directory (County Directory Publishing Company 1871:201). Even as ranchers,

the Peñas and Vacas had cultivated some of their land. In 1843, John Wolfskill testified that they planted "corn, peas, beans, etc." (U.S. District Court Records No. 74 ND:96). Salvio Pacheco stated on June 17, 1853, in San Francisco that in addition to having herds of cattle and horses, Vaca and Peña were cultivating portions of their lands in wheat, barley, and vegetables (U.S. District Court Records No. 74 ND:8). Crystal (1933:62, 82-83) was told by Maria Dolores Peña Lyon that corn and peas were the favored vegetables on the rancho, and that many varieties of vegetable seeds were obtained from mission priests. These would have been grown as supplements to their beef-based diet, and not as commercial crops. Hoes in the artifact collection attest to the tilling of gardens.

Wheat. According to Fraser, (1879:63, 315) around 1850 the Vacas, Peñas, and the few families in the Vacaville area, were all stockraisers, but by 1867, Solano County led California in wheat production and wheat replaced stockraising in importance.¹⁰ Wheat remained the main commercial crop until about 1880. The scythe blade found under the north frame addition is material evidence that the Peñas harvested hay or grain. This damaged scythe blade was probably put under the circa 1880 addition when it was being built. A photo in Wickson (1888:79, Plate XI) shows that the Riveras had a header wagon. The Solano County Assessment Roll

(1881:138) for 1881 lists as personal property of Nestora Peña Rivera, 13 tons of wheat worth \$260 and: farm utensils \$10, machinery \$25, (2) wagons \$50, harness \$10, (2) horses \$50, (12) cows \$240, (6) calves \$36, (1) mule \$25, (20) hogs \$40.

In 1852, a warehouse was built in Suisun by Captain Josiah Wing to store the products of Solano County, which were later transported on the schooner Ann Sophia (Thompson and West 1877:14). Grains and other products from the county were shipped from the Suisun embarcadero, Bird's Landing, and other locations on the Sacramento River to be transported to San Francisco and then to distant markets, such as Liverpool, England (Fraser 1879:71; Wickson 1888:17; Hoover, Rensch, and Rensch 1966:523; Limbaugh and Payne 1978:47-48). A portion of the Suisun road, which led to the embarcadero, followed the western edge of Laguna Valley and was easily accessible for the Peñas (Wickson 1888:78, 79).

Fruit Growing

In the 1870s wheat profits began to decline and the land was increasingly turned to orchards and vineyards (Wickson 1888:11, 19). Vacaville's economic transition from grain to fruit culminated in the 1880s. The countryside surrounding Vacaville became one of California's and the

nation's most prolific producer of fresh fruits (Limbaugh and Payne 1978:104). Estimated percentages of fruits grown in Vaca Valley in 1888: peaches 30%, grapes 20%, apricots 19%, pears 10%, plums and prunes 10%, cherries 6%, figs 1%, nectarines 1%, others 2% (Wickson 1888:101). Two factors made the Vacaville fruit industry extremely profitable. First, fruits ripened early and late (the season extended from April to November), which created noncompetitive markets, and secondly, sufficient rainfall permitted non irrigated horticulture. Although the resulting fruits were smaller than irrigated fruit, they were less prone to spoilage, facilitating long distance shipments (Limbaugh and Payne 1978:108).

Railroad. In 1868, the Central Pacific Railroad (later the Southern Pacific Railroad) along a transcontinental route crossed Solano County, Vallejo being its southern terminus (Hoover, Rensch, and Rensch 1966:522; Wickson 1888:72). The following year the Vaca Valley Railroad (4-1/2 miles of track) linked Vacaville to Elmira which was on the overland route (Wickson 1888:10, 71). The key role that the railroad played in the fruit industry is discussed by Wickson (1888:7) and Fraser (1879:318). By the early 1880s the Vacaville area was producing a surplus of fruit which was mainly being railed to regional markets, particularly in

the Bay area, but also to Denver, Chicago, and New York¹¹
(Limbaugh and Payne 1978:63-64, 122).

Vacaville fruit and vegetable shipments increased from 7,653,457 pounds in 1881 to 20,001,976 in 1887. Sometimes, five or six cars per day went east from Vacaville during the 1887 season, and at least, two shipments were made almost daily from the middle of May until the first of October. Afternoon fruit trains carried produce to San Francisco, where it was distributed the next morning (Wickson 1888:7). In 1895, the Vacaville district produced over 25 percent of the fresh fruit marketed in the state (Limbaugh and Payne 1978:127).

Labor. Chinese labor was used extensively by fruit growers. This may explain the Chinese coins, oriental celadon and Japanese Imari ceramics found at the adobe. By 1880, Chinese accounted for almost one fifth of the population in the Vacaville township, and when the Chinese Exclusion Act passed in 1882, they were probably a majority of the Vacaville orchard labor force (Limbaugh and Payne 1978:60, 73, 131).

The Peñas As Horticulturalists

Historic documents show that Peña family members made economic changes from stockraising to wheat farming and

fruit growing. These transitions are not sharp demarcations; they overlap one another.

José Demetrio Peña. Limbaugh and Payne (1978:73) presented evidence that Demetrio Peña was financially successful in his transition to farming. From 1863 to 1874 the Suisun City newspapers listed twenty eight Vacaville people who were assessed over \$10,000 for tax purposes. Four Peñas (no Vacas) appeared on the list, and by 1874 Demetrio Peña had the ninth largest income in Vacaville.

By 1880 José Demetrio Peña had one of the largest grain farms in the township (Limbaugh and Payne 1978:57, 59, 99). In 1888, when Wickson (1888:78) researched his book, the southern half of Laguna Valley was still predominately owned by the offspring of Juan Felipe Peña, the land being used for pasture or farmed for grain. Demetrio Peña had 386 acres, of which 16 were planted in trees and vines. The balance was given to crops of wheat, barley, and corn, with uncultivated portions used for pasturage.

In 1884 Elise P. Buckingham purchased from José Demetrio Peña his residence¹² and about 200 acres of land in Lagoon Valley which she named Lagunita Rancho. Peña had planted near his residence vines in 1852, which were still fruiting at the rate of 8-1/2 tons to the acre. In 1853 he

planted pear, English walnut and fig trees which were yielding large crops in the 1880s (Wickson 1888:79-80).

Juan Antonio Peña. Juan Antonio Peña owned 314 acres, of which 25 acres were in orchard and vineyard, 32 acres in vegetables, and the remainder was used in general farming (Wickson 1888:78). At least a portion of his vegetable acreage was planted in watermelons. Watermelons were often very profitable, as they matured quite early here. Juan Antonio told Wickson (1888:126, 131) that he sent his first shipment of watermelons on June 2nd and that his land in Laguna Valley was very fertile, the soil being from one to twenty feet deep.

Nestora Peña Rivera. José Demetrio and Juan Antonio were sons of Juan Felipe Peña. His daughter, Nestora, married Juan Tapia Rivera and they resided in the adobe. Five hundred acres of Nestora Rivera's ranch (1000 acres) was valley land, the balance, hilly. In 1888, they had 80 acres of orchard (and were planning to plant more) and 300 acres of grain. On the hill east of the residence was a large almond orchard (Wickson 1888:73, 79, Plate X; Clifford Curtice, personal communication 1984). In 1962, fewer than ten cherry plums remained of the Rivera orchard located northeast of the adobe (Merle Curtice, personal communication 1984). The cherry plum was the first of the season to

ripen and consequently enjoyed a profitable market (Wickson 1888:107). The Riveras also had a pear orchard near their home (Solano County Historical Society n.d.).

The Riveras grew fruits commercially as the stencil (see pages 212, 214 for artifact description) is typical of those used to mark fruit boxes. Although the stencil (Fig. 75 page 213) is mostly illegible, enough remains to determine that the stenciled boxes were to be sent to a company in San Francisco.

Large impressive olive trees stood in the dooryard of the Rivera home (Wickson 1888:79, Plate XI). From these trees they made olive oil (Florence Martinelli Peña, personal communication 1983). Mission fig trees (one remains), grapevines, pomegranates, quinces, black walnut, almond, and elm trees, and two Spanish apricot trees surrounded the adobe (Appendix K) (Coombs 1967; Hoover, Rensch, and Rensch 1966:512).

Land values dramatically increased in the 1880s (after the wheat and cattle business declined) when smaller orchards were planted (Limbaugh and Payne 1978:112). After 1890, farms were typically thirty to forty acres. Large individual tracts seldom exceeded 500 acres (Limbaugh and Payne 1978:112). Nestora Peña Rivera was therefore wealthy in property, owning 1000 acres.

CHILDREN AT THE ADOBE

Marbles, doll parts, toy ceramic dishes, and a child's shoe reflect the adobe's younger occupants. Historic sources also record children's presence at the Peña home.

Birth Custom

Early California days it was customary for babies to be born in their grandparents' home. Maria Dolores Peña Lyon was born in the Peña Adobe in 1849 (Crystal 1933:58). Some of Rose Peña Coombs' brothers and sisters were born in the adobe, but she was not. By the time of her birth (1881) the custom had been discontinued (Coombs 1963a).¹³

Children Raised At The Adobe

Several children were raised at the adobe. Juan Felipe Peña's son, Jesus,¹⁴ married Maria Anastasia Vaca. She died as a young adult, leaving two small children, Maria Dolores and José Jesus (Solano County Records Book J Deeds:11, Book N Deeds:416-417). These children were raised at the adobe by their paternal grandparents, Juan Felipe and Isabella Peña, and supervised by a Native American girl (Crystal 1933:41, 83-84).

Francisco Peña, second eldest son to Juan Felipe, married Jovina Berryessa, who also died early in life. Their three children, Marfeo, Anastasia, and Epifana, were raised by their aunt Nestora Rivera and their father, at the adobe, circa 1885-1900s. Francisco lived at the adobe until his death (Coombs 1963a).

The Extended Family

Several generations of children lived in the adobe. After graduation from law school in San Francisco, Vidal Peña (grandson of Juan Felipe) lived at the adobe and helped manage his Aunt Nestora's 1000 acre rancho, which he supervised "astride a white horse with a silver-studded saddle" when her husband, Jesus Rivera, was ill (Alisea and Heikkila 1977:75, 77).¹⁵ After Rivera's death (1900), Vidal lived there as overseer until Nestora Rivera's death in 1922. In 1902 he married Anita Schmitz. Their two children, Gustave (Tavo) and Frances, were born at the adobe.

SOCIAL EVENTS

Ceremonial Occasions

The Peñas and Vacas attended weddings and baptisms at Mission San Francisco Solano, in Sonoma. The women and children made the day-long journey in a carreta (cart drawn

by oxen). They traversed the "Old Peña Pass Road," a trail between Sonoma and Sutter's Fort which entered Lagoon Valley at Peña Pass.¹⁶

Marriages. At least three of the Vaca children, Magdalena, Maria Anastasia and Teófilo, were married at Mission San Francisco Solano. Demetrio Peña and Inez Berryessa were witnesses at the marriage of Teófilo Vaca and Incarnación Briones on November 6, 1849 (Sonoma Mission Marriages Vol. II #359). Marco Vaca and Jesus Maria Vaca, on June 6, 1851, were witnesses at the wedding of Joseph Valentine Varelos and Mariana Alvarado (Sonoma Mission Marriages).

Maria Anastasia Vaca and Jesus Peña, children of Vaca and Peña, exchanged vows at the Sonoma Mission. Prominent guests at the wedding included General M. G. Vallejo, and his wife, Andres Pico (brother of Governor Pío Pico), and Albert Lyon and his wife Prudence Patton Lyon, who were members of the Donner Party. The Lyons brought their young son, John Patton, to the ceremony. He later married the daughter of the wedding couple, Maria Dolores Peña (Crystal 1933:87-88).

Following the wedding, 100 guests journeyed to the Vaca-Peña Rancho and participated in a wedding feast, which was followed by a bear-versus-bull fight. The women observed the fight from the safety of the Vaca Adobe

(Crystal 1933:88). Bear-and-bull fights were a traditional California sport. Following initial victory, the bear was forced to fight additional bulls until it succumbed (Vickery 1977:38).

The above couple's daughter, Maria Dolores Peña, married John P. Lyon.¹⁷ Their wedding celebration at the Peña Adobe lasted a week and included feasting, dancing, and a rodeo. A bull-and-grizzly bear fight was staged in one of the corrals. The bull was killed (Brazelton 1963; Rodriguez 1948:2).

Baptisms. Baptisms were also performed at Mission San Francisco Solano. Juan Manuel Vaca had one son by his second wife, Estefano Martinez. At seven months, the child, Francisco Miguel, was baptized on May 8, 1848. His godparents, Jesús Maria Peña and Maria Anastasia Vaca, attended the baptism. On this same date, José Manuel Vaca and Estefano Martinez witnessed the baptism of their godchild, José Francisco Berryessa. Also baptized on this day was three-month-old José Patricio Vaca, son of Marcos Vaca and Maria Guadalupe Alvarado. His godparents were Juan Felipe Peña and wife, Isabella (Sonoma Mission Records #1652; #1653; #1654). Maria Dolores Peña, born October 3, 1849, was also baptized in the Sonoma Mission. Some of the Indian

children living on the rancho were baptized, and the Vacas and Peñas became their godparents.¹⁸

Mass. Occasionally, the Vacas and Peñas would attend mass in Sonoma. In later years Nestora Rivera attended services at the Old Catholic Church on Catherine Street in Vacaville. She rode to church in a surrey with a black leather top drawn by two bay horses (McMillan 1963).¹⁹

Entertainment

On the rancho, the Peñas and Vacas entertained themselves with sports, dancing, and music. They had a race track. Barbecue pits near their homes roasted beef, deer, prong horn, and bear (McMillan 1963). Horseback riding was a favorite pastime on the rancho. Twenty to twenty-five guests would usually attend these fiestas, normally remaining overnight (Crystal 1933:86-87).²⁰

In the spring of 1851, Luzena Stanley Wilson (1937:49-52) and her family settled three-quarters of a mile from the Vaca Adobe. Two months after their arrival, Vaca invited them, with the aid of an interpreter, to attend a dance that evening in his home.

When we arrived at the adobe house the light steamed through open windows and doors far out into the night and revealed, tethered all about, the saddle-horses of the guests and lit up many

black-eyed, smiling faces, looking to see how the Americans would be received. Don Manuel with his daughter, greeted us with all the ceremony and courtesy of a Spanish grandee and showed us to the place of honor. We were ushered into a long room illuminated with tallow dips, destitute of furniture, with the exception of the two or three chairs reserved exclusively for the use of the American visitors. On either side were many mats, on which reclined with careless grace and ease the flirting belle and beau and the wrinkled duennas of the fiesta. The musical accompaniment to the dancing, which had already begun, was played upon guitar and tambourine, and the laughing, chattering, happy crowd swayed and turned in wave-like undulation to the rhythm of a seductive waltz. They fluttered their silken vari-colored scarfs, and bent their lithe bodies in graceful dances which charmed my cotillion and quadrille-accustomed eyes. The young ladies were dressed in true Mexican costume; snowy chemises of soft fine linen, cut low, displayed the plump necks, leaving bare the dimpled arms; bright hued silk petticoats in great plaid patterns and shawls and scarfs of brilliant scarlet, set off in contrast their glossy, jet hair, their red lips, and their sparkling, tigerish, changing eyes. The men in holiday attire of velvet jackets of royal purple and emerald green, profusely trimmed with gold and silver braids, were as gaudy in color and picturesque in appearance as the feminine portion of the assembly. The refreshments comprised strangely compounded but savory Spanish stews, hot with chilies, great piles of tortillas, and gallons of only tolerable whiskey. Near midnight they were served informally. Some of the guests ate reclining on their mats, some standing about the long, low table, some lounging in door-ways and window-seats--all laughing, talking, coqueting and thoroughly enjoying the passing minutes, forgetful of yesterday, heedless of tomorrow, living only in the happy present. Among the prominent and honored guests were members of the most wealthy and influential Spanish families of the country. I remember well the pretty faces and manly figures of the Armijos, Picos, Peñas, and Berryessas, who have long since been gathered in peace to their fathers, or are still living, holding prominent places in various California communities [Wilson 1937:50-52].

The archaeological record also shows that the Peñas entertained themselves with music and games. A jew's harp is the only musical instrument in the artifact collection. The Solano County Assessment Roll (1881:138) lists an organ (worth \$25) as personal property of Nestora Peña Rivera.

Games played at the Peña Adobe included cards, mah-jongg, and checkers. Playing cards were found under the wood floor in the central room of the adobe (Merle and Clifford Curtice, personal communication 1984; The Vacaville Reporter 1963:17). One checker and several mah-jongg pieces were recovered.

EDUCATION

Archaeological Evidence

The ceramic inkwell (recovered at the adobe) suggests someone had acquired writing skills. The degree of these skills can not be determined from this single artifact. Other educational materials found were nine slate pencils and part of a slate tablet. These pencils may have sketched simple drawings by children in play, or they may have been used to write and/or do math lessons.

Historic Data

The historic record shows that some family members were "educated." Vaca and Peña hired a Spanish teacher to educate their children in reading, writing, and mathematics (Crystal 1933:85). Later Nestora Peña was sent to Saint Catherine's Convent in Benicia, where she became literate in English and Spanish (Young 1971:26). Saint Catherine's was established in 1854, and operated as a convent and school until June, 1959 (Hoover, Rensch, and Rensch 1966:518). At twelve years of age, Maria Dolores Peña was sent to this Dominican convent (Crystal 1933:85). Their education would indicate some degree of economic means, as it was atypical for women to be literate in that era.

Often 10, 15, or 20 illiterate men, women, and children would visit the adobe to hear Nestora Peña read, the children generally playing outdoors or in another room (Coombs 1963a, 1963b). Nestora's literacy was a proud accomplishment. Neither her father, Juan Felipe Peña, nor Juan Manuel Vaca, could read or write. All documents (grants, wills, etc.) are signed by them with an "X". Nestora's eldest brother, José Demetrio, also signed documents with an "X" (Solano County Records Book Q Deeds:176). Her husband, Jesus Tapia Rivera was literate in English and Spanish.

HEALTH

Medicine Bottles

The largest representation of glass bottles is medicinal. Twenty-eight are non-proprietary bottles. Because they lack embossing and paper labels, it is impossible to know what medicines they contained, nor what ailments they treated.

Although the proprietary medicine bottles give some hint of content, some, such as sarsaparilla, treated numerous diseases. The "Holloway's Ointment jar, for the cure of scrofula-inveterate ulcers," suggests, at least, one Peña member had skin ulcers from "tuberculosis" or from another disorder that left skin lesions. Two of the bottles, "syrup of figs" and "castoria," contained laxatives.

The large number of medicine bottles found shows that the Peñas believed in the curative effects of these medicinals.

CONCLUDING REMARKS

Juan Felipe Peña's only daughter, Nestora Peña Rivera, acquired the Peña Adobe and one thousand acres on December 19th, 1859 (Young 1971:25, Appendix G). She retained this property until a few years before her death, in 1922. Being

childless, she deeded to her niece, Maria Dolores Peña Lyon, on August 26, 1918, 52.55 acres, which included the adobe (Young 1971:28; Solano County Records Book 236 Deeds:118-119). On the same day, she deeded 38.10 acres to her nephew, Vidal P. Peña (Solano County Records Book 236 Deeds 120-121). She chose this niece and nephew to inherit her property because they were the two oldest grandchildren of Juan Felipe Peña (Coombs n.d.).²¹ The largest portion of Nestora Rivera's land, 709.65 acres, was sold to Clarence Jerome Uhl on February 18, 1920 (Young 1971:28; Solano County Records Book 244 Deeds:416-417).

In 1918, Nestora Rivera bought a house and moved to Vacaville. Maria Dolores and her husband, John P. Lyon, with their granddaughter and her husband, Mr. and Mrs. Herman Stolp, then lived at the adobe. When they moved, the adobe remained vacant, except for a brief period, circa 1930, when the frame addition of the house was leased to a Chinese man. Maria Dolores Peña Lyon always kept the adobe portion for herself and would visit it on hot days (Coombs 1963a). Of the original 44,383.78 acres granted to Vaca and Peña, their descendents owned 212 acres in the early 1930s.²²

In 1947, Maria Dolores Lyon deeded to her children, Albert W., Anita V., and Nestora Y., the land on which the Peña Adobe stands (Solano County Records Book 357 Official

Records: 395-397). They were the last descendents of the Peña family to own the adobe, which was sold in 1957 to Delbert A. Mowers and William F. Goheen (Solano County Records, Book 905 Official Records:120-122).

That Nestora Peña Rivera was able to retain possession of her inheritance until 1918 (the adobe and parcels of land being owned by descendents until 1957) is unusual for Californios. She, and her brothers José Demetrio and Juan Antonio, adapted to the economies which followed cattle ranching: grain farming; fruit and vegetable growing. Although the brothers sold portions of their estate, they maintained enough acreage to farm. A more typical fate for these rancheros is that of the Berryessas, who, because of debts, had sold the last of their 35,515 acre Los Putos grant in Monticello Valley by 1860.

NOTES

1. Maria Dolores Peña Lyon told Crystal (1933:84) that her grandfathers, Juan Manuel Vaca and Juan Felipe Peña, traded with the Russians for silks and possibly other merchandise. This seems questionable as the Russians abandoned Fort Ross early in 1842 (Gregory 1912:28), the year Vaca and Peña settled on their rancho.

2. Juan Antonio Peña married Francisca Alvarado who was the granddaughter of Francisco Ávila, owner of the 13-room Ávila Adobe on Olvera Street, Los Angeles (Alisea and Heikkila 1977:75).

3. Recalled by Galvino Peña, grandson of Juan Felipe Peña.

4. Native American household servants were also employed (Crystal 1933:41; Palumbo 1964:5). Maria Dolores Peña Lyon recalled three Indian servants named Ramona, Little Mary, and Big Mary who worked in the Peña kitchen. Their duties included cooking, dishwashing, and washing and mending clothes. The clothes were laundered in the stream east of the adobe (Crystal 1933:83). Vaca provided yardage to clothe these people (Crystal 1933:43).

5. Wood Young (1971:17) gives the sale price as \$8000 but the deed says \$800.

6. McDaniel deeded a one-half interest for \$1500 to Lansing B. Mizner (Solano County Records Book C Deeds:309; Young 1971:17, Appendix F; Hunt and Gunn 1926:37-38). The town lots were deeded to Vaca on October 1, 1850 (Solano County Records Book C Deeds:510-511).

7. In 1861 Juan Felipe Peña paid taxes on 1815 acres valued at \$7075. All of Peña's sons paid taxes on land their father had deeded them on December 12, 1859 (Young 1971:25; Solano County Records Book N Deeds:779-794). Juan Antonio owned 930 acres valued at \$2215 (paid \$221.50 in taxes), Gavino had 770 acres worth \$1105 (at \$1.50 per acre), Francisco had 161 acres valued at \$805, Jesus paid \$103.50 on 900 acres worth \$4500, and José Demetrio held 5520 acres valued at \$12,635 (Solano County Assessment Roll 1861:175-176). On October 21, 1871, Nestora Peña paid \$104.25 in taxes for 700 acres of land worth \$2940. In 1871 Demetrio Peña owned only 2081 acres having a value of \$7412 with improvements. Francisco had 165 acres worth \$1155. Juan Peña paid \$155.60 on 286 acres worth \$1960 plus personal property (Solano County Assessment Roll 1871:88).

8. William Carey Jones was a confidential agent of the United States appointed in July 1849 to investigate Spanish and Mexican land titles in California. His report to the Secretary of Interior was submitted April 10, 1850 (Crystal 1933:166).

9. Juan Manuel Vaca deeded through his attorney Ramon de Zaldo to each of his children an undivided 1/9th of his portion to Rancho Los Putos on December 3, 1855. The children of Maria de Jesus and Maria Anastasia, deceased daughters of Vaca, inherited their mother's 1/9th share (Solano County Records Book J Deeds:11, Book N:416-418).

10. Limbaugh and Payne (1978:45-48) stated that in 1860 Vacaville township had 123 persons listed in the census as stockraisers, shepherds, and stock dealers, but by 1870,

only one person was listed as a shepherd and one as a stock-dealer.

11. At first, fruit was shipped in ventilated cars, sometimes with blocks of ice. The California Fruit Growers Union was formed in 1885 as a cooperative marketing association to organize shipments of fruits, and in 1889, the first refrigerator cars were used for California fruits (Hunt and Gunn 1926:215-216; Gregory 1912:126; Limbaugh and Payne 1978:122, 125).

12. This frame home was built by the Peñas with funds from hides and tallow. The lumber, cut in Maine, was individually numbered from an architect's pattern, and shipped around the Horn. The house stood for over a century before being demolished (Limbaugh and Payne 1978:120).

13. Rose Coomb's brother, Vidal P. Peña, was born in the Peña Adobe in 1864 (Alisea and Heikkila 1977:75; Crystal 1933:58). Joseph Peña, grandson of Demetrio Peña, was born in the adobe (Florence Martinelli Peña, personal communication 1983).

14. Jesus Peña was the only one to leave the valley. After his wife died, he went to Los Angeles. He returned married to Gertudes Trujillo, and settled in the English Hills (Coombs 1963a, 1963b).

15. While managing the rancho, Vidal Peña continued to practice law and to defend the impoverished citizens of his community (Alisea and Heikkila 1977:75, 77).

16. The trail was eventually made into a road on which a four-horse stage operated between Sacramento and Vallejo. The road also linked San Rafael and Sonoma to San José and Monterey (Crystal 1933:41-42, 91-92).

17. They met while students at the California College in Vacaville.

18. On May 8, 1848, Juan Felipe Peña became godfather to Maria del Rosario, a three-year-old Indian girl. Jesus Maria and Appolonia Vaca became godparents (1851) to a six-year-old Indian servant, Mariana Briones. Maria Luisa Armijo, an Indian servant girl, was the godchild of Jesus Maria Vaca and Francisca Armijo (Sonoma Baptisms II #1656, #1754, #1756). Nestora and Jesus Rivera were godparents to Rose Coombs. Even in later years family baptisms were important. Mrs. Veronica Ficker (1965) wrote that her Aunt Nestora Rivera and Uncle Juan Antonio Peña traveled to Davis

to observe the baptism of her sister, Juanita Berryessa Straine, May 26, 1902.

19. Often her nephew Joseph Peña would drive her to church (Florence Martinelli Peña, personal communication 1983).

20. Maria Dolores Peña Lyon told Crystal (1933:86) that the Vacas and Peñas traveled on horseback to Santa Clara and even to San José to attend rodeos and picnics. Juan Felipe Peña's daughter Nestora, and granddaughter Maria Dolores, attended one of Vacavilles first parades (about 1856) followed by an evening dance (Crystal 1933:85). Maria Dolores Peña Lyon shared her fond memories with Rodriguez (1948:2) of summer canoeing on the lagoon near her home.

21. Nestora Rivera deeded 3.30 acres and 11.97 acres to the above mentioned niece and nephew on February 27, 1920 (Solano County Records Book 246 Deeds:65-68).

22. In 1933 Maria Dolores Lyon owned 100 acres of the original rancho, Nestora Lyon two acres, Vidal Peña about 55 acres, Fred Peña, 5 acres, and Salvador Peña, approximately 50 acres (Crystal 1933:92).

Chapter 9

SUMMARY AND CONCLUSIONS

This treatise has examined rancho life for the Juan Manuel Vaca and Juan Felipe Peña families. California's Mexican era has often been glorified as the days when fiestas were a continuous phenomenon. The artifact assemblages, architecture, and historic data indicate that between the few romantic interludes of socializing were long, arduous days on Rancho Los Putos. The artifacts are for the most part utilitarian items one would expect to find in any modest farm home between 1860 and 1920. The photo of Nestora Peña Rivera and her husband Juan Tapia, in front of their home (Fig. 10), typifies these hardworking people who led a simple existence.

The Peñas and Vacas did enjoy religious ceremonies such as marriages, baptisms and mass at Mission San Francisco Solano in Sonoma. Baptismal records indicate that these events did not occur often. The families would wait until several children needed to be baptized before they would make the day-long journey to Sonoma.

Although the two families on occasion entertained themselves with bear-and-bull fights, dancing, and music, these lavish events did not occur in a ballroom or beautiful Span-

ish courtyard. The Peña Adobe is a simple three room, dirt floor home with four windows. It never came close to achieving the grandeur of the Avila or Vallejo adobe homes. Although enough capital was obtained to modernize the home, circa 1880, it was still a modest structure compared to the stately mansions of John Wolfskill and John Bidwell.

Vaca's and Peña's grant of 44,384 acres was too large for the two families, vaqueros, and Native Americans, to completely utilize its resources. Native Americans had no prior experience with cattle ranching, and Wilson's (1937:49) description of the vaqueros as congregating daily to drink and gamble does not portray them as always hard-working, diligent men.

Several other factors examined in this manuscript partially explain the Vacas' and Peñas' inability to fully exploit the wealth of their land. In California the families had to adapt to a habitat geographically, politically, and economically different from that of New Mexico. The tenuous political situation in California hindered this already difficult process. Vaca and Peña had problems in affirming their grant, in part because Governor Micheltorena was replaced by Pío Pico before their petition was confirmed. The Wolfskill boundary confrontation compounded the problem, as did the distance to Monterey and Los Angeles

where legalities were negotiated. Exacerbating the basic problems of settling were political events from abroad. Just four years after their arrival, the Bear Flag Revolt occurred, followed by the gold rush, and California's annexation to the United States. These events brought an influx of Anglos to the area, many of whom squatted on the rancho. The legal battles that ensued cost Vaca and Peña dearly in land. The majority of their lawyers did little preparation to represent their case to the United States Land Commissioners, yet they still demanded 10 percent of the rancho for fees. Vaca and Peña hired separate lawyers with the exception of John Currey because of a personal conflict. This feud added to the cost of litigation, as did the case's appeal to the United States Supreme Court. Their illiteracy and non-fluency in English, in addition to inexperience in business and financial affairs, was an added liability in legal matters and adjustments to Anglo society. This problem was exemplified during negotiations between Vaca and William McDaniel, which resulted in Vaca deeding nine square miles to McDaniel, instead of one mile square. United States property taxation further devastated their land holdings.

The rapid economic changes in the Vacaville area added additional burdens to Vaca and Peña. The gold rush brought an abrupt end to the hide and tallow industry. The families

were forced to deal with a cash economy rather than a barter system, as their cattle became valued for meat rather than hides and tallow. The prices of commodities were constantly in fluctuation, as was the value of cattle which went from \$4.00 to \$500.00 a head in three years (Bean 1973:203-204). This economic transition required them to go from a basically self-sufficient lifestyle to one dependent on the availability of merchandise. One to two decades after establishing themselves in the grain industry, wheat profits declined and fruit growing became the dominant occupation. Each of these businesses required new skills and investments in equipment. Only some members (José Demetrio, Juan Antonio, and Nestora) of the Peña family were able to make these economic transitions. Due to economic hardships and lack of cash, land, which was finite, became one of their principal resources. Land was sold to pay lawyers and court fees, taxes and basic living expenses.

The two families must have experienced great psychological trauma watching their land holdings diminish because of squatters, who were often violent, and legal fees. The uncertainty of their future under the United States Government, compounded with repeated exploitation from lawyers must have also been stressful. It was eight years after California became a state before their title to Rancho Los Putos was confirmed. During this period the families did

not know if they would lose possession of their land. If the Vaca and Peña families had not been caught in a period of great economic and social change brought on by the gold rush, their descendents may have been the elite of California today.

Several factors made it imperative that an exhaustive study be made on the Peña Adobe. The artifacts were never catalogued or analyzed, and in the course of twenty years since restoration commenced, some have been lost, stolen, and mixed with non-Peña material. Certain architectural details were never recorded. Merle Curtice, restoration supervisor well trained in research on historic buildings, was able to contribute invaluable structural information on the Peña Adobe, which is one of the oldest residences still standing in Northern California. Some questions that arose during research could have been easily answered twenty years ago by Rose Peña Coombs and other descendants of Juan Felipe Peña. These inadequacies show that trying to reestablish facts is difficult. Had this study not been undertaken, additional information would have become inaccessible with time.

Knowledge can still be obtained from archaeological fieldwork. Economic factors, safety, and the adobe being a public park, make a large scale excavation prohibitive at

present. It is known that the Peñas had a well on the east side of the adobe. If located and excavated this well could provide an immense amount of material culture. The Peña Adobe is situated on top of a prehistoric mound which offers additional research potential.

In conclusion, this study has provided significant insights into the social, economic, and cultural development of two central California families from 1842 to 1918.

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APPENDIX A
GLASS BUTTONS

	Diameter	Thickness
<u>Two-Hole Sew-Throughs</u>		
Plain opal glass:		
1-0-1203	1.40 cm	0.30 cm
1-0-1572	1.35 cm	0.40 cm
White recessed center with color border:		
1-0-1785	1.40 cm	0.40 cm
Salted glass:		
1-0-1720	1.40 cm	0.40 cm
1-0-1621	1.10 cm	0.30 cm
1-0-1712	1.30 cm	0.35 cm
<u>Three-Hole Sew-Throughs</u>		
Plain opal glass:		
1-0-1733	0.80 cm	0.20 cm
White recessed center with color border:		
1-0-1788	0.80 cm	0.30 cm
<u>Four-Hole Sew-Throughs</u>		
Plain opal glass:		
1-0-1591	1.70 cm	0.45 cm
1-0-1586	1.70 cm	0.50 cm
1-0-1588	1.60 cm	0.40 cm
1-0-1594	1.70 cm	0.50 cm
1-0-1592	1.55 cm	0.40 cm
1-0-1595	1.40 cm	0.40 cm
1-0-1612	1.60 cm	0.35 cm
1-0-1599	1.20 cm	0.30 cm
1-0-1600	1.05 cm	0.30 cm
1-0-1585	1.40 cm	0.40 cm
1-0-1614	1.10 cm	0.30 cm
1-0-1607	1.10 cm	0.30 cm
1-0-1603	1.10 cm	0.25 cm

1-0-1619	1.00 cm	0.25 cm
1-0-1608	1.00 cm	0.30 cm
1-0-1617	1.10 cm	0.30 cm
1-0-1601	1.05 cm	0.30 cm
1-0-1615	1.00 cm	0.25 cm
1-0-1604	1.05 cm	0.25 cm
1-0-1605	1.00 cm	0.25 cm
1-0-1566	1.35 cm	0.40 cm
1-0-1590	1.20 cm	0.40 cm
1-0-1613	1.10 cm	0.30 cm
1-0-1593	1.00 cm	0.30 cm
1-0-1602	1.00 cm	0.25 cm
1-0-1596	1.10 cm	0.25 cm
1-0-1567	1.05 cm	0.25 cm
1-0-1569	1.05 cm	0.30 cm
1-0-1616	1.00 cm	0.30 cm
1-0-1564	1.40 cm	0.35 cm
1-0-1587	1.30 cm	0.30 cm
1-0-1606	1.10 cm	0.25 cm
1-0-1597	1.05 cm	0.20 cm
1-0-1568	1.00 cm	0.30 cm
1-0-1610	1.00 cm	0.30 cm
1-0-1609	1.00 cm	0.20 cm
1-0-1598	1.05 cm	0.25 cm
1-0-1573	1.00 cm	0.25 cm
1-0-1570	1.00 cm	0.25 cm
1-0-1565	1.05 cm	0.30 cm
1-0-1589	0.95 cm	0.25 cm
1-0-1620	1.05 cm	fragment
1-0-1618	1.00 cm	0.25 cm
1-0-1574	0.90 cm	0.20 cm
1-0-1576	1.00 cm	0.20 cm
1-0-1575	0.95 cm	0.20 cm
1-0-1713	1.70 cm	0.45 cm
1-0-1715	1.60 cm	0.40 cm
1-0-1716	1.60 cm	0.35 cm
1-0-1717	1.30 cm	0.30 cm
1-0-1714	1.10 cm	0.30 cm
1-0-1718	1.00 cm	0.25 cm
#1	1.05 cm	0.25 cm

Salted glass:

1-0-1721	1.40 cm	0.30 cm
1-0-1724	1.20 cm	0.30 cm
1-0-1719	1.30 cm	0.40 cm
1-0-1723	1.10 cm	0.30 cm
1-0-1722	1.10 cm	0.30 cm
1-0-1611	1.30 cm	0.40 cm
2-2-86	1.45 cm	0.35 cm
1-0-1582	1.45 cm	0.30 cm

1-0-1579	1.40 cm	0.30 cm
1-0-1581	1.40 cm	0.35 cm
1-0-1578	1.40 cm	0.35 cm
1-0-1583	1.20 cm	0.30 cm
1-0-1584	1.10 cm	0.30 cm
1-0-1580	1.10 cm	0.25 cm

Opal glass with two green bands:

1-0-1727	1.55 cm	0.40 cm
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White recessed centers with color borders:

1-0-1790	1.50 cm	0.50 cm
1-0-1784	1.55 cm	0.50 cm
1-0-1791	1.50 cm	0.50 cm
1-0-1781	1.10 cm	0.40 cm
1-0-1794	1.10 cm	0.40 cm
1-0-1792	1.05 cm	0.40 cm
1-0-1802	1.05 cm	0.30 cm

Brown four-hole sew-throughs:

1-0-1779	1.00 cm	0.30 cm
1-0-1800 ¹	1.05 cm	0.30 cm
1-0-1780 ¹	1.10 cm	0.20 cm

Orange four-hole sew-throughs:

1-0-1801	1.10 cm	0.40 cm
1-0-1786	1.10 cm	0.40 cm

Pink four-hole sew-throughs:

1-0-1787	1.05 cm	0.25 cm
1-0-1571	1.00 cm	0.20 cm

Black Pressed-Glass Buttons

1-0-1783	2.40 cm	0.50 cm
1-0-1776	2.30 cm	0.90 cm
1-0-1796	2.15 cm	0.50 cm
1-0-1777	1.45 cm	0.70 cm
1-0-1782	1.10 cm	0.60 cm
1-0-1789	1.20 cm	0.25 cm
1-0-1795	1.20 cm	0.95 cm

Calicos

1-0-1736	1.00 cm	0.30 cm
1-0-1735	1.10 cm	0.30 cm
1-0-1737	1.10 cm	0.30 cm

1-0-1738	fragment	0.30 cm
<u>Pie-Crust</u>		
1-0-1734	0.70 cm	0.20 cm
1-0-1729	1.10 cm	0.30 cm
1-0-1730	1.00 cm	0.25 cm
1-0-1732	0.85 cm	0.20 cm
1-0-1731	0.85 cm	0.30 cm
1-0-1577	0.90 cm	0.30 cm
<u>Hobnail</u>		
1-0-1728	1.10 cm	0.30 cm
<u>Glass Whistle Buttons</u>		
1-0-1798	1.60 cm	0.60 cm
1-0-1797	1.60 cm	fragment
<u>Carnivel Glass</u>		
1-0-1799	1.10 cm	0.20 cm
1-0-1793	1.20 cm	0.50 cm
<u>Cameo</u>		
1-0-1726	2.10 cm	0.60 cm
<u>Pink Convex With White Band</u>		
1-0-1778	1.30 cm	0.70 cm

NOTE

1. This button had a metal collet.

APPENDIX B
UNIDENTIFIABLE CERAMIC FRAGMENTS

EARTHENWARE

Underglaze Red Transfer-Print

1-0-483 1-0-701 1-0-702

Underglaze Black Transfer-Print

1-0-1003 1-0-1005

The following belonged to a set. They all portray portions of a horse in black print. These sherds match the print on one of the cup fragments.

1-0-992 1-0-994 1-0-997 1-0-996 1-0-999
1-0-998 1-0-1000

Two other black transfer-printed fragments picture horses:

1-0-993 1-0-995

Underglaze Brown Transfer-Print

1-0-323 1-0-685

Underglaze Blue Transfer-Print

1-0-909	1-0-917	1-0-923	1-0-822	1-0-920
1-0-924	1-0-956	1-0-916	1-0-927	1-0-919
1-0-934	1-0-926	1-0-918	1-0-925	1-0-874
1-0-921	1-0-929	1-0-848	1-0-959	1-0-912
1-0-1319	1-0-928	1-0-847	1-0-939	1-0-944
1-0-873	1-0-953	1-0-930	1-0-914	1-0-780
1-0-903	1-0-906	1-0-898	1-0-895	1-0-902
1-0-905	1-0-821	1-0-962	1-0-961	1-0-915
1-0-951	1-0-913	1-0-843	1-0-835	1-0-838
1-0-842	1-0-836	1-0-849	1-0-846	1-0-840
1-0-844	1-0-839	1-0-893	1-0-897	1-0-904
1-0-845	1-0-850	1-0-945	1-0-102	1-0-1023
1-0-775	1-0-779	1-0-774	1-0-892	1-0-900
1-0-899	1-0-891	1-0-896	1-0-901	

Blue transfer-print set:

1-0-783	1-0-787	1-0-788	1-0-802	1-0-790
1-0-794	1-0-795	1-0-784	1-0-801	1-0-791
1-0-792	1-0-798	1-0-793	1-0-797	1-0-796
1-0-799	1-0-786	1-0-800	1-0-789	

Porcelain:

1-0-952	1-0-957	1-0-823
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Underglaze Green Transfer-Print

1-0-1028	1-0-1029	1-0-1030	1-0-1026	1-0-473
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Flow Blue

These fragments have the same pattern as that exhibited on one of the plates (Cat. No. 1-0-810).

1-0-804	1-0-806	1-0-807	1-0-809	1-0-811
1-0-805	1-0-808	1-0-803	1-0-812	

Shell edge:

1-0-776

Blue Glazed Earthenware

1-0-908	1-0-1342	1-0-1336	1-0-1337	1-0-1341
1-0-1338	1-0-1339	1-0-1340	1-0-818	1-0-1014
1-0-1013	1-0-911	1-0-937	1-0-1012	1-0-871
1-0-872	1-0-943	1-0-870	1-0-827	1-0-1019
1-0-1020	1-0-933	1-0-958	1-0-1018	1-0-830
1-0-935	1-0-946	1-0-947	1-0-938	1-0-940

Porcelain with a blue-tint glaze:

1-0-826	1-0-948
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White Glazed Ironstone

1-0-532	1-0-533	1-0-707	1-0-530	1-0-531
1-0-686	1-0-534	1-0-519	1-0-486	1-0-535
1-0-551	2-1-63	2-1-44	2-1-45	2-1-10
1-0-542	1-0-522	1-0-525	1-0-665	1-0-548
1-0-409	1-0-558	1-0-523	1-0-654	1-0-1327
1-0-1326	1-0-1333	1-0-1325	1-0-1332	1-0-1330
1-0-1324	1-0-1329	1-0-405	1-0-1328	1-0-1331

Handle fragments:

1-0-556 1-0-727 1-0-555 1-0-557 1-0-688

Brown Glazed Earthenware

Handle fragment:

1-0-512

Various Colored Glazed Earthenware

1-0-463 1-0-648 1-0-578 1-0-625 1-0-671
 1-0-624 1-0-692 1-0-950 1-0-649 1-0-637
 1-0-955 1-0-1112 1-0-636 1-0-703 1-0-644
 1-0-635 1-0-700

Various Colored Glazed and Printed Earthenware

1-0-591 1-0-963 1-0-715 1-0-475 1-0-1031
 1-0-1032 1-0-777 1-0-832 1-0-825 1-0-1006
 1-0-819 1-0-820 1-0-931 1-0-932 1-0-670
 1-0-1021 1-0-657 1-0-778 1-0-663 1-0-824
 1-0-683 1-0-684 1-0-666 1-0-711 1-0-571
 1--629 1-0-695 1-0-630

Porcelain:

1-0-693 1-0-949 1-0-618 1-0-705 1-0-936
 1-0-865

Hand-Painted Earthenware

1-0-592 1-0-593 1-0-595 1-0-594 1-0-596
 1-0-609 1-0-610 1-0-611 1-0-605 1-0-601
 1-0-606 1-0-604 1-0-607 1-0-602 1-0-603
 1-0-599 1-0-608 1-0-600

Porcelain

1-0-204 1-0-941 1-0-689 1-0-691 2-1-50
 2-1-43 1-0-437 1-0-1335 1-0-1334

Majolica

1-0-590 1-0-589 1-0-588 1-0-587

Japanese Imari

Some of these fragments appear to be of cups,
plates, or saucers:

1-0-758	1-0-757	1-0-756	1-0-767	1-0-765
1-0-772	1-0-764	1-0-770	1-0-761	1-0-759
1-0-760	1-0-764	1-0-762	1-0-768	1-0-773
1-0-766	1-0-771	1-0-769		

Stoneware

1-0-445	1-0-650	1-0-645	1-0-647	1-0-447
1-0-448	1-0-412	1-0-639	1-0-646	1-0-640
1-0-642	1-0-641	1-0-643	1-0-631	1-0-632

APPENDIX C
METAL BUTTONS

	Diameter	Thickness
<u>Pants Button</u>		
1-0-1222	1.60 cm	0.60 cm
<u>Sew-Throughs</u>		
<u>Three-Hole.</u>		
1-0-1682	1.10 cm	0.10 cm
<u>Four-Hole.</u>		
1-0-1689	1.90 cm	0.30 cm
1-0-1819	1.70 cm	0.25 cm
1-0-1821	1.85 cm	0.30 cm
1-0-1823	1.80 cm	0.25 cm
<u>Miscellaneous Button Types</u>		
<u>Colonials.</u>		
1-0-1806	1.10 cm	0.15 cm
1-0-1807	1.15 cm	0.05 cm
1-0-1808	1.10 cm	0.10 cm
<u>Two-Piece.</u>		
1-0-1824	1.60 cm	0.55 cm
<u>Three-Piece.</u>		
1-0-1811	1.65 cm	0.35 cm
1-0-1812	1.65 cm	0.35 cm
1-0-1813	1.55 cm	0.30 cm
1-0-1816	2.20 cm	0.60 cm
1-0-1817	1.45 cm	0.50 cm
<u>Overall Buttons:</u>		
1-0-1513	1.70 cm	0.25 cm
1-0-1526	1.70 cm	0.30 cm
1-0-1534	1.50 cm	0.60 cm
1-0-1535	1.50 cm	0.50 cm

Four-Piece.

1-0-1809	2.10 cm	0.50 cm
1-0-1810	1.75 cm	0.60 cm
1-0-1818	1.90 cm	0.85 cm
1-0-1825	1.30 cm	0.50 cm

Buttons With Manufacturers' Marks

1-0-1803	1.55 cm	0.40 cm
1-0-1805	1.70 cm	0.20 cm
1-0-1866	1.20 cm	0.40 cm

APPENDIX D
SQUARE NAILS

2 penny

1-0-1306

3 penny

1-0-1305

4 penny

Shingle nail:	1-0-1272	1-0-1250	2-2-53
Square:	2-2-48	2-2-32	2-2-33

5 penny

1-0-1266

6 penny

1-0-1274 2-2-30 2-2-152 2-2-109

7 penny

2-1-75	1-0-1264	1-0-1280	1-0-1268	1-0-1244
1-0-1255	1-0-1185	2-2-51		

Finish nail:

1-0-1307 1-0-1269

8 penny

1-0-1279	1-0-1276	1-0-1260	1-0-1243	1-0-1277
1-0-1184	1-0-1256	2-2-29	1-0-1261	1-0-1259
1-0-1304	2-2-6	1-0-1257	1-0-1263	1-0-1258
1-0-1247	1-0-1262	1-0-1248	1-0-1303	1-0-1242
2-2-28	2-2-151	2-2-149	2-1-10	2-1-41

Finish nails:

1-0-1249 2-2-27 1-0-1271

10 penny

1-0-1245 1-0-1252 1-0-1239 1-0-1240 1-0-1241

1-0-1238	1-0-1254	1-0-1253	1-0-1246	2-1-8
1-0-1301	1-0-1302			

10 penny

Finish nail:

1-0-1194

16 penny

2-2-26

Fragments

1-0-1282	1-0-1283	1-0-1270	2-2-36	1-0-1278
2-2-35	2-2-31	2-2-34	2-1-9	2-1-13
2-2-109	2-2-108			

Lath nail:

1-0-1275 1-0-1273 1-0-1265

Shingle nail:

1-0-1267

APPENDIX E

BONE BUTTONS

	Diameter	Thickness
<u>Two-Hole Sew-Throughs</u>		
With recessed centers:		
1-0-1708	1.25 cm	0.20 cm
1-0-1709	1.20 cm	0.25 cm
<u>Four-Hole Sew-Throughs</u>		
With recessed centers:		
1-0-1696	1.40 cm	0.20 cm
1-0-1697	1.40 cm	0.30 cm
1-0-1698	1.40 cm	0.25 cm
1-0-1699	1.50 cm	0.25 cm
1-0-1700	1.40 cm	0.20 cm
1-0-1707	1.25 cm	0.20 cm
Concave:		
1-0-1706	1.70 cm	0.30 cm
#19 P	1.10 cm	0.20 cm
Convex:		
1-0-1704	1.70 cm	0.25 cm
1-0-1705	1.65 cm	0.30 cm
<u>Five-Hole Sew-Throughs</u>		
With flat centers, and convex borders:		
1-0-1701	1.55 cm	0.20 cm
1-0-1702	1.65 cm	0.20 cm
With recessed center:		
1-0-1703	1.65 cm	0.30 cm

APPENDIX F

GUTTA-PERCHA AND RUBBER BUTTONS

	Diameter	Thickness
GUTTA PERCHA		
<u>Two-Hole Sew-Throughs</u>		
1-0-1852	1.40 cm	0.25 cm
<u>Four-Hole Sew-Throughs</u>		
1-0-1849	2.50 cm	0.55 cm
1-0-1848	2.50 cm	0.55 cm
<u>Whistle</u>		
1-0-1850	1.70 cm	0.70 cm
PAPER		
1-0-1693	1.70 cm	0.20 cm
1-0-1694	1.20 cm	0.20 cm
HARD RUBBER		
<u>Two-Hole Sew-Throughs</u>		
1-0-1815	1.50 cm	0.50 cm
1-0-1851	1.90 cm	0.50 cm
1-0-1692	1.70 cm	0.60 cm
<u>Four-Hole Sew-Throughs</u>		
1-0-1862	1.40 cm	0.40 cm
1-0-1863	1.40 cm	0.30 cm
1-0-1864	1.40 cm	0.30 cm
<u>Goodyear Buttons</u>		
1-0-1859	1.50 cm	0.30 cm
1-0-1860	1.20 cm	0.35 cm

Vegetable Ivory

1-0-1678	1.50 cm	0.35 cm
1-0-1870	1.50 cm	0.30 cm

APPENDIX G
SHELL BUTTONS

	Diameter	Thickness
<u>Two-Hole Sew-Throughs</u>		
Plain:		
1-0-1657	1.30 cm	0.10 cm
1-0-1624	1.35 cm	0.15 cm
1-0-1671	1.35 cm	0.20 cm
1-0-1623	1.45 cm	0.20 cm
1-0-1628	1.00 cm	0.20 cm
1-0-1622	1.20 cm	0.10 cm
1-0-1656	1.00 cm	0.10 cm
1-0-1658	0.95 cm	0.10 cm
1-0-1630	1.00 cm	0.10 cm
1-0-1659	1.00 cm	0.10 cm
1-0-1677	1.30 cm	0.10 cm
1-0-1626	1.05 cm	0.20 cm
1-0-1625	1.20 cm	0.10 cm
1-0-1644	1.65 cm	0.25 cm
1-0-1673	1.45 cm	0.10 cm
1-0-1674	1.10 cm	0.15 cm
1-0-1672	0.95 cm	0.20 cm
1-0-1629	1.00 cm	0.10 cm
1-0-1675	1.00 cm	0.10 cm
2-1-53	1.00 cm	0.15 cm
1-0-1563	1.20 cm	0.10 cm
1-0-1636	1.20 cm	0.20 cm
1-0-1633	1.40 cm	0.30 cm
1-0-1634	1.30 cm	0.20 cm
1-0-1755	1.45 cm	0.20 cm
1-0-1746	1.30 cm	0.35 cm
1-0-1743	1.15 cm	0.15 cm
1-0-1739	1.35 cm	0.20 cm
1-0-1740	1.50 cm	0.15 cm
1-0-1741	1.20 cm	0.15 cm
1-0-1748	1.00 cm	0.20 cm
1-0-1747	1.00 cm	0.15 cm
1-0-1749	0.80 cm	0.10 cm
1-0-1639	1.55 cm	0.25 cm
1-0-1640	1.35 cm	0.25 cm
1-0-1642	1.30 cm	0.30 cm
1-0-1641	1.20 cm	0.20 cm
1-0-1643	1.00 cm	0.15 cm

Decorated:

1-0-1637	1.70 cm	0.20 cm
1-0-1638	1.70 cm	0.15 cm
1-0-1745	1.30 cm	0.20 cm
1-0-1744	1.30 cm	0.15 cm
1-0-1742	1.35 cm	0.20 cm
1-0-1655	1.50 cm	0.20 cm
1-0-1757	1.50 cm	0.20 cm
1-0-1751	1.85 cm	0.20 cm
1-0-1750	2.50 cm	0.25 cm
1-0-1753	1.80 cm	0.35 cm
1-0-1756	1.50 cm	0.20 cm
1-0-1754	1.85 cm	0.30 cm
1-0-1752	1.90 cm	0.20 cm

Four-Hole Sew-Throughs

Plain:

1-0-1758	2.05 cm	0.25 cm
1-0-1761	1.40 cm	0.20 cm
1-0-1759	1.25 cm	0.20 cm
1-0-1760	1.10 cm	0.20 cm
1-0-1763	1.05 cm	0.15 cm
1-0-1765	1.00 cm	0.20 cm
1-0-1762	1.00 cm	0.15 cm
1-0-1769	0.80 cm	0.15 cm
1-0-1646	1.45 cm	0.20 cm
1-0-1645	1.40 cm	0.25 cm
1-0-1649	1.00 cm	0.20 cm
1-0-1650	1.05 cm	0.10 cm
1-0-1647	0.85 cm	0.20 cm
1-0-1669	0.90 cm	0.15 cm
1-0-1631	1.10 cm	0.25 cm
1-0-1632	1.05 cm	0.20 cm
1-0-1651	1.10 cm	0.20 cm
1-0-1662	0.90 cm	0.15 cm
1-0-1670	0.80 cm	0.20 cm
1-0-1660	1.05 cm	0.20 cm
1-0-1661	1.05 cm	0.20 cm
1-0-1632	1.00 cm	0.15 cm
1-0-1627	1.00 cm	0.10 cm
1-0-1665	0.85 cm	0.15 cm
1-0-1664	1.00 cm	0.15 cm
1-0-1653	0.80 cm	0.10 cm
1-0-1666	0.75 cm	0.10 cm
1-0-1654	2.20 cm	0.30 cm
1-0-1652	1.05 cm	0.20 cm
1-0-1668	0.80 cm	0.20 cm

Decorated:

1-0-1648	0.90 cm	0.25 cm
1-0-1663	0.90 cm	0.15 cm
1-0-1667	0.80 cm	0.10 cm
1-0-1871	0.85 cm	0.20 cm
1-0-1767	0.80 cm	0.10 cm
1-0-1764	1.00 cm	0.15 cm
1-0-1766	0.80 cm	0.15 cm
1-0-1768	0.80 cm	0.10 cm

"Pin-Head Shank" Buttons

1-0-1771	1.50 cm	0.30 cm
1-0-1676	1.50 cm	0.30 cm
1-0-1772	1.80 cm	0.20 cm

Heart

1-0-1770	1.40 cm	0.40 cm
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Shell Buttons With Metal Shank-Plates

1-0-1775	1.40 cm	0.25 cm
1-0-1774	1.15 cm	0.20 cm

CE SUPER QUALITY Shell Button

1-0-1773	2.20 cm	0.35 cm
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APPENDIX H

ROSE PEÑA COOMBS (1881-1973) WAS TOLD THE FOLLOWING INFORMATION BY HER FAMILY

Interviewed on March 20, 1967, by Rodney Rulofson

- (1) Where was the handpump located in the outdoor kitchen?
(1855-1865)

Answer: Pump was located on east side of Peña Adobe, almost facing door of living room and about 15 or 20 feet away.

- (2) Where did the huge pictures of J. F. Peña, his wife and Nestora hang in the main room of the adobe?

Answer: The large pictures were on the south wall - organ was placed on right hand west side - writing desk on the east side.

- (3) Did the outdoor kitchen have a bake oven and where was it located?

Answer: They had a bake oven and kitchen on the east side of the adobe - also rocks where they placed kettles and other cooking utensils - not too far from the well.

- (4) Did the Peñas first use Lake Laguna water before they dug a well? Was the water salt in the Laguna?

Answer: Only the men folks used the water from the Lake - not the lake itself but the water that flowed over the rocks. The lake was not salty as it was fed by four springs which ran the whole year. One spring at Radcliff place and three from our ranch.

- (5) Did the Peñas have a tallow kettle and a hide drying rack near by for slaughtering?

Answer: Yes, they had several large ones and small ones. I was told the hide drying rack was out near the barn where they had a caldron too. They used many methods of hide drying. Regarding kettles - they built out of rock, round, almost full circles, and about two feet high. The kettles were placed on top of these rocks and the fire built under - they built several as they were used for many purposes. The kettles were

called Calderos or Calderones. The Calderos were used to make soups & hominy (pasole which the Indians made with corn, but the Spaniards made pasole with hominy [which is corn too] and pork, especially with shanks and pigs feet). They also made menudo that is also hominy but with hog's tripe. We made those dishes too but cooked ours in our fireplace - the Caldrons were used to heat water for laundry and for melting fats for tallow and for baths. Regarding drinking water - the first thing the old pioneers did was to dig a well. So the Peñas and Vacas left their families in Sonoma and they did not come to Lagoon until the adobes and well were built.

- (6) Did the outdoor kitchen have a three foot wall around it?

Answer: At first I understand and also the house had a tight fence around it as there were many children and they had to be protected against wild animals. Fences were built around all buildings and after living there for a while they had no trouble with wild animals as they had several dogs - so then just ordinary fences were enough. In my day we had no walls around any building. Our playyard, or vegetable land and our garden were fenced with either a picket or just plain fences as they are today.

- (7) Were you ever told of the position of the outdoor kitchen?

Answer: I understand the kitchen was north of the Peña Adobe north wall.

APPENDIX I

LIFE IN RURAL SOLANO COUNTY CIRCA 1885

Rose Peña Coombs (1881-1973), granddaughter of Juan Felipe Peña, recalled life for those people living in rural Solano County circa 1885:

One reads so much about the fun early settlers had, such as Rodeos, bull fights; dances, etc, but not much is mentioned about how hard they worked. They had to build their homes, had to clear land; plant and harvest all their food. They had no windmills. All water was pumped by hand, both for domestic and animal uses, and gardening. They had to raise feed for their horses and cattle. Foods such as vegetables, and grains, had to be planted and those which could be dried were stored. They learned to can fruits. The women cooked on wood burning stoves and made all their bread, in fact, all food and cooked it. They made their own bacon and ham, cheese, sausage, and lard. All sewing in the earlier period was hand work, then by treadle machine. They made clothes for men and women and children, even underwear. The men folks got up at five o'clock and came in at noon and had dinner (not lunch), rested (siesta) about half an hour and returned to work until six, and then tended to their horses and cattle and milked the cows and then had supper. After supper, in summer, all sat outdoors singing, talking, playing guitar, accordion, harmonica and jew's harp. Children played games. Then prayers and to bed.

They also had to cut wood for cooking and for heating and believe me it took a lot of wood. And through all this they were so thankful and so happy, and they still took time to help some less fortunate than they [Coombs 1964].

APPENDIX J

ROSE PEÑA COOMB'S (1881-1973) MEMORIES OF THE PEÑA

ADOBE FURNITURE USED BETWEEN 1885 AND 1890

In main or center room of adobe:

- (1) Large round table on center pedestal (unusual legs). Shawl covered the table. On it were the Bible, photo album, and other religious books.
- (2) Several chairs, most of them upholstered in velvet.
- (3) Corner chair (placed in northeast corner of central adobe room).
- (4) Sofa.
- (5) A small marble top table by one window.
- (6) An organ at one corner.
- (7) Combination writing desk and bookcase. It had many books in Spanish and English.
- (8) Music box.
- (9) A very pretty carpet on the floor (remember this was in 1885-1890).
- (10) No window drapes, but cornices made of sea-shells from which hung nice lace curtains.
- (11) Picture of Juan Felipe Peña (hung on northern end of west wall).
- (12) Picture of Isabella Peña (hung on west side of north wall).
- (13) Picture of Juan Tapia Rivera (hung on east side of north wall).
- (14) Picture of Nestora Peña Rivera (hung on south wall).

In bedrooms:

- (1) The bedrooms had double beds. Also a washstand and a bureau. All very plain.

APPENDIX K

ROSE PEÑA COOMB'S (1881-1973) MEMORIES OF THE PEÑA
ADOBE GARDENS

Interviewed on March 20, 1967, by Rodney Rulofson

- (1) Names of all old type flowers in the garden?
Answer: Marigolds, pinks, ranunculuses, hollyhocks, verbenas, China lillies, tulips and roses. Flowers and ornamental trees were grown on the south side of the adobe.
- (2) Names of all old trees in the yard?
Answer: Two Lebanon cedars brought from the Holy Land by Mr. Blum (Senior) were planted on the west side of the adobe, two Balearic honeysuckle trees, orange, lemon, pomegranate, cedron, also a cork tree (planted on east side of the adobe).
- (3) Names of all old shrubs in the yard?
Answer: Lilacs, Syringa (mock orange), Castilian rose, (the Castilian rose was more of a shrub - it was quite thorny - it was planted around all outbuildings for shade - we had it around our chicken houses).
- (4) Names of all vegetables grown by 1860?
Answer: Corn, red peppers, gourds, beans, cabbage, squash, pumpkins, lentils, garbanzos, watermellon, muskmellon - these seeds were brought from Los Angeles. Vegetables were grown next to the creek.
- (5) Names of fruit trees in the family orchard?
Answer: Olives, almonds, figs, pears, quinces, nuts, two Spanish apricot trees planted from seeds brought from Spain. The fruit and nut trees were planted on the west side of the adobe. John R. Wolfskill brought almond and fig trees to the adobe. Each porch had Black Mission grape arbors, the grapes coming from the Santa Barbara Mission.
- (6) Name any outbuildings at the Peña Adobe of about 1860?
Answer: The barns and blacksmith shop buildings were located back of Mary Almond home across from adobe -

also two or three other buildings used by the workmen and also a toilet - there was also a well at the barnyard. Regarding arbors, each porch had Black Mission grape arbors - these I was told were brought from Santa Barbara Mission. Most of the fruit trees were given to my grandfather by Mr. Wolfskill.